

# *Quick Facts*



Indiana State  
Department of Health

# *Contents*

† = Vaccine Preventable Disease

Anthrax (Bacillus Anthracis).....	1
Antibiotic Use and Antibiotic Resistance .....	3
Botulism .....	4
Bovine Tuberculosis and Whitetail Deer .....	6
Campylobacter .....	8
Chickenpox (Varicella) .....	10
Chronic Wasting Disease (CWD) .....	12
Conjunctivitis (Pink eye, Red eye) .....	13
Cryptosporidiosis .....	14
Cyclosporiasis .....	16
Diabetes Mellitus .....	18
Diphtheria .....	21
E.coli O157:H7 .....	22
Ehrlichiosis .....	24
Arboviral Encephalitis.....	26
Fifth Disease .....	28
Giardiasis .....	30
Hand, Foot, and Mouth Disease (HFMD) .....	32
Hand Washing.....	33
Hantavirus Pulmonary Syndrome .....	35
Head lice (Pediculosis) .....	37
Hepatitis A † .....	38
Hepatitis B † .....	40
Hepatitis B Carriers †.....	42
Hepatitis B Contacts † .....	44
Hepatitis C .....	46
Hepatitis E.....	48
Histoplasmosis .....	50
HIV .....	52
Immunizations for Flood Victims and Workers † .....	54
Influenza A ("the flu") † .....	55
Legionellosis .....	57
Listeriosis .....	58
Lyme Disease.....	60
Malaria (mah-LARE-ee-ah).....	61
Measles † .....	63
Meningococcal Disease † .....	64
Mononucleosis .....	66
Mumps (Infectious parotitis) †.....	67
Needle-Sticks .....	68
Osteoporosis.....	70
Pertussis (Whooping cough) † .....	72
Plague.....	73

Pneumococcal Infections † .....	74
Q Fever.....	76
Rabies †.....	78
Respiratory Syncytial Virus (RSV) .....	79
Rocky Mountain Spotted Fever .....	80
Rubella † .....	82
Salmonella.....	83
Scabies .....	85
Shigellosis .....	86
Shingles.....	88
Smallpox .....	89
Staphylococcal Food Poisoning.....	91
Information You Should Know Before Getting A Tattoo .....	93
Toxoplasmosis .....	96
Trichinosis.....	98
Tuberculosis .....	100
Tularemia .....	102
Typhoid Fever † .....	103
Vaccine Preventable Diseases: Information for Adults † .....	106
Viral Gastroenteritis.....	108
Viral Meningitis .....	110
West Nile Virus.....	112
Yersiniosis.....	113

## About... *Anthrax (Bacillus Anthracis)*

### What is anthrax?

Anthrax is a disease that commonly occurs in warm- blooded animals, such as goats, sheep, cattle, pigs, but can also occur in humans.

It is most common in regions where these animals are raised, especially in South and Central America, Asia, Africa, the Caribbean, the Middle East, parts of Europe, and rarely in the United States.

### How can humans get anthrax?

There are three ways humans can get anthrax:

- through cuts or breaks in the skin from touching an infected animal or animal parts;
- by breathing or inhaling anthrax; or
- by eating undercooked meat from an animal infected with anthrax (this is very uncommon).

Humans are not very susceptible to infection, and person to person transmission of anthrax is very rare.

### What are the symptoms of anthrax?

Symptoms depend on how a person was exposed to anthrax:

- If infected through the skin, the symptoms include an itchy rash that turns into a painless sore that appears black in the center. Lymph nodes in the area of the rash may swell. This type of exposure is very treatable, but if not treated, one in five people infected through the skin die.
- If infected by breathing anthrax, cold-like symptoms appear one to six days after exposure (most often within 48 hours), but then more severe breathing problems develop. Shock follows, and death usually occurs in one to two days after cold-like symptoms begin.
- If infected by eating contaminated meat, the symptoms include nausea, loss of appetite, vomiting and fever. More severe symptoms follow including: abdominal pain, vomiting of blood, and severe diarrhea. Death occurs in
- **25% to 60% of people exposed to anthrax by eating infected meat.**

### Can anthrax be treated?

Anthrax can be treated with certain antibiotics, but treatment must begin very soon after exposure. Inhalation anthrax should be treated prior to symptom onset to be most effective.

If not treated, anthrax can cause death.

### Is there a vaccine to prevent anthrax?

There is an approved vaccine, and it is recommended for the following people:

- healthy people aged 18 to 65 years, who have been exposed to anthrax;

- people who investigate anthrax cases;
- United States military personnel.

**What if I may have been exposed to anthrax?**

Persons with possible exposure will be evaluated by public health officials to determine if antibiotic treatment should be started.

**References:**

Centers for Disease Control and Prevention

United States Department of Defense

For more information, call (317) 233-7665

## **About... *Antibiotic Use and Antibiotic Resistance***

### **What are antibiotics?**

Antibiotics are drugs prescribed by your health care provider to fight infections caused by bacteria.

### **How do antibiotics work?**

Antibiotics slow the spread of infection so that a person's own body can fight off the infection. Some of the drugs slow the growth of bacteria and allow the person to fight off the bacteria. Other antibiotics kill the bacteria. Antibiotics only work against bacteria. Virus infections, such as colds and flu, cannot be treated with antibiotics.

### **When do my children or I need an antibiotic?**

An antibiotic should be taken when prescribed by your health care provider for an illness known or thought to be caused by bacteria.

### **What if the antibiotic does not work?**

Your health care provider may try a higher dose of the antibiotic, a different antibiotic, or may find that either a virus or bacteria that are resistant to the antibiotic caused your infection.

### **What does "resistant to the antibiotic" mean?**

It means that the bacteria has genetically changed so that the antibiotic is no longer capable of slowing the growth or killing it. When this happens, you continue to be sick.

### **Why should I be concerned that some bacteria are becoming resistant to antibiotics?**

If antibiotic resistant bacteria become widespread, health care providers may not be able to treat serious illnesses with current antibiotics. People may die from diseases that used to be treated with antibiotics.

### **What can I do to prevent bacteria from becoming resistant to antibiotics?**

- Only take antibiotics when needed. For example, flu is caused by a virus and will not be helped by antibiotics.
- Take the medicine prescribed by your health care provider for the entire time listed on the bottle, even if you feel better sooner.
- Do not save medicine for later illness.
- Do not demand antibiotics when they are not needed.
- Do not take someone else's antibiotics or give your antibiotics to someone else.

## About... *Botulism*

### What is Botulism?

Botulism is a very serious disease caused by a toxin (poison) made by *Clostridium botulinum* bacteria, which live in the soil and grow best with very little air. These bacteria form spores, which allow them to survive harsh environments. The toxin causes paralysis which can make a person stop breathing. Botulism can cause death and is a medical emergency.

### How is Botulism spread?

You can get botulism three different ways:

- Eating foods that contain botulism toxin (especially improperly home-canned foods);
- Babies who eat certain foods such as honey or natural syrups that contain spores of botulism bacteria, which grow in the body and produce toxin; and
- Wounds infected with botulism bacteria.

Botulism is not spread from person-to-person.

### What are the symptoms of Botulism?

- Double vision or blurred vision
- Drooping eyelids
- Difficulty speaking or swallowing
- Dry mouth
- Weakness
- Paralyzed arms, legs, and chest

Symptoms of botulism begin six hours to ten days after exposure to contaminated food or after a wound is infected with the bacteria. Babies with botulism appear tired, don't feed well, are constipated, and have a weak cry and limp muscles. These are symptoms of the muscle paralysis caused by the bacterial toxin.

### How do I know if I have Botulism?

You cannot tell without seeing your doctor. Your doctor may order tests to rule out other diseases, and may collect a stool (bowel movement) or blood sample.

### How is Botulism treated?

A person who has breathing failure or is paralyzed needs intensive medical care in a hospital. The paralysis slowly improves after several weeks. If discovered early, botulism obtained from food and wound botulism can be treated with an antitoxin. The antitoxin keeps the illness from becoming worse but does not speed recovery. Antitoxin is not used to treat babies with botulism.

### **Are there complications from Botulism?**

People can die from botulism poisoning because of breathing failure. Someone with severe botulism may need a breathing machine and medical care for several months. Those who survive botulism poisoning may have tiredness and shortness of breath for years.

### **How can Botulism be prevented?**

- People who do home canning should follow very clean methods to reduce contamination of food and carefully follow home-canning instructions. Instructions for safe home canning are available from county extension services or the United States Department of Agriculture (USDA).
- Since the bacterial toxin is destroyed by heat, people who eat home canned foods should boil the food for 10 minutes before eating it.
- Never eat foods in cans or jars that are bulging, discolored, or have swollen lids or caps.
- If the can or jar looks normal but the food has a bad taste or smell, do not eat it.
- Potatoes that have been baked wrapped in aluminum foil should be kept hot until they are eaten or refrigerated. If leftovers are kept overnight, remove the foil from the potatoes before storing.
- Oils with garlic or herbs in them should be refrigerated.
- Do not feed honey to babies less than twelve months old. Honey can contain spores of the bacteria, which can easily grow in infants.
- Carefully clean and disinfect all cuts and wounds, especially if they are dirty. See your doctor immediately if the injury is infected.
- Do not use injectable street drugs.



## **About... *Bovine Tuberculosis and Whitetail Deer***

### **What is bovine tuberculosis?**

Bovine tuberculosis is a bacterial disease of cattle that can infect humans other domestic animals and some wildlife. It has been found in whitetail deer in Northeast Michigan. The bacteria *Mycobacterium bovis* causes the disease. This bacterium is closely related to the bacteria *Mycobacterium tuberculosis* associated with human tuberculosis. Bovine tuberculosis has not been found in Indiana livestock since 1983.

### **How can humans get bovine tuberculosis?**

There are three ways humans can get bovine tuberculosis:

- by breathing or inhaling air contaminated with the bacteria after an infected animal or infected person coughs or sneezes very close by. It is very unlikely that an individual would contract tuberculosis from a deer by this method.
- by drinking unpasteurized milk from an infected cow or eating raw or undercooked meat from an infected animal. The consumption of undercooked or raw meat poses the biggest threat for contracting bovine tuberculosis from venison.
- by handling infected meat in the dressing and processing of animal carcasses, especially if hands aren't washed carefully prior to consuming food. There is very little risk that an individual would contract bovine tuberculosis by this method

### **How can I prevent getting infected with bovine TB from a deer?**

Animals that aren't healthy or have lesions suggestive of tuberculosis in the lungs, body organs, bones, or on the interior surface of the rib cage should not be consumed for food. Because tuberculosis lesions may not always be visible, all venison should be thoroughly cooked until there is no pink areas remaining and all juices run clear. Venison should not be smoked, made into jerky, or sausage that will not be thoroughly cooked. Fully cooking venison will kill any tuberculosis bacteria present as well as any other disease causing bacteria.

After field dressing or handling any carcass or other raw meat, hands should be washed with soap and water. Hand washing removes both the blood and disease causing bacteria including tuberculosis. This practice should always be followed, even if the animal appears healthy.

### **What are the symptoms of bovine tuberculosis in people?**

The symptoms generally relate to the transmission method and are similar to the tuberculosis of people. The symptoms related to TB include:

- cough
- fever
- night sweats
- fatigue

- weight loss, without dieting

**How can bovine tuberculosis be diagnosed in humans?**

A TB skin test can identify if you have been infected.

**How is bovine tuberculosis treated?**

With prescription drugs used to treat tuberculosis caused by *Mycobacterium tuberculosis*.

## **About...*Campylobacter***

### **What is Campylobacter?**

Campylobacter (camp-ee-low-BACK-ter), is a bacterium that lives in the gut (intestines) of many animals, including birds, farm animals, dogs and cats. These bacteria can cause illness in humans and is one of the most commonly reported causes of diarrheal illness.

### **How is Campylobacter spread?**

You can get Campylobacter infection by eating undercooked poultry meat, such as chicken or turkey, or by eating or drinking unpasteurized dairy products. You can also get Campylobacter infection by drinking untreated water or from direct contact with the waste of infected animals (such as after cleaning animal cages or cat litter boxes).

Campylobacter can also be spread from person-to-person by contact with stool. This can happen by touching others with unwashed hands after using the bathroom or by touching items such as diapers or linens soiled with stool and then touching your mouth.

Facilities where there are clients/patients who are not toilet trained, such as child care centers, have an increased risk of transmission.

### **What are the symptoms of Campylobacter?**

- Diarrhea, which is sometimes bloody
- Stomach cramps
- Fever
- Upset stomach
- Vomiting

Symptoms usually appear 2 to 5 days after exposure. For most people, Campylobacter causes symptoms that usually last for no more than one week.

Serious complications and death are rare, but in some cases, infection with Campylobacter may lead to a condition known as “Guillain-Barre Syndrome”, which affects the nervous system and generally results in temporary paralysis.

### **How do I know if I have Campylobacter?**

See your doctor. Your doctor will probably ask you for a stool sample to test for the bacterium.

### **How is Campylobacter treated?**

Most people recover without medical treatment within 5 to 7 days. Antibiotics may be used to shorten the duration of illness and eliminate the bacterium from the body.

### **How can Campylobacter be prevented?**

- Always wash hands with soap and water:
- after using the bathroom;
- after diapering children;
- after touching anything soiled with stool;
- after touching pets or other animals or cleaning environments that may contain animal waste;
- before eating and preparing food.
- Supervise young children when they are washing their hands.
- Wash all surfaces that raw meat or poultry touches, including all utensils, bowls, and counter tops.
- Use separate cutting boards to prepare poultry and other raw meats.
- Cook all poultry thoroughly. Poultry should be cooked to 165°F. Temperatures should be taken in the thickest part of the meat and not next to any bone. If the temperature cannot be checked, cook poultry until juices run clear and the meat is no longer pink.
- Use a clean plate for cooked meat. Never return cooked meat back to the same plate used for raw meat.
- Marinade or barbeque sauce used on raw meat should not be used on cooked meat.
- Wash or peel all uncooked vegetables and fruits.
- Do not eat or drink unpasteurized milk, dairy products, or juices.
- Do not drink untreated water.

## **About... *Chickenpox (Varicella)***

### **What is chickenpox?**

Chickenpox is a very contagious disease that is caused by a virus. It is associated with children, but adults can catch it, too. Although most persons fully recover, chickenpox can cause major health problems, even death.

### **What are the symptoms of chickenpox?**

The symptoms of chickenpox include:

- a slight fever may be present (fever will usually become higher when spots appear);
- spots which occur first on the back and chest, and continue to appear for 2 to 3 days;
- the flat, red spots become raised, and fill with fluid. After the fluid is released, the area will form a scab.

### **How is chickenpox spread?**

Ways that chickenpox is spread include:

- direct contact with an infected person; or through the air
- contact with an infected person's nose or throat drainage when he or she coughs or sneezes;
- indirect contact with articles very recently exposed to an infected person's chickenpox sores or mucous membranes.
- an infected person is contagious from one-two days before the rash (sores) appears until the rash has crusted or scabbed over.

### **How is chickenpox treated?**

Treatment is aimed at comfort: fingernails should be trimmed to prevent infection from scratching, over the counter medications/lotions can be used for itching, and bedclothes should be changed frequently to help prevent skin infections.

### **How serious is chickenpox?**

Although usually considered a mild disease of childhood, chickenpox can result in serious complications.

Around 364,000 physician visits and 10,000 hospitalizations are caused by chickenpox each year.

An estimated 50 persons die in the United States from chickenpox each year.

A few cases of serious infections with group A strep including streptococcal toxic shock syndrome have been reported in children with chickenpox.

**How can chickenpox be prevented?**

If you or your child have not had the chickenpox, talk to your healthcare provider about receiving the vaccine or a medication that can help prevent you from getting the disease.

Infected persons are very contagious to people who have not had chickenpox or to people whose bodies can not fight infections very well.

It is very important for people who have chickenpox to be isolated from others. Infected children and adults should not attend school or work until the sores on their bodies have become dry and crusty.

Recent data have shown that varicella vaccine may be effective in preventing chickenpox or modifying severity if given within three days of exposure

## **About....*Chronic Wasting Disease (CWD)***

### **What is CWD?**

CWD is a disease of the nervous system of deer and elk. The disease is similar to a group of diseases referred to as transmissible spongiform encephalopathies. This group of diseases includes scrapie of sheep, bovine spongiform encephalopathy (Mad Cow Disease) and Creutzfeld-Jakob Disease of humans. The agents that cause these infections are called prions, an abnormal form of a naturally occurring nervous system protein.

The disease was first recognized in 1967 at a Colorado wildlife research facility. It has now been diagnosed in wild deer and elk in Colorado and Wyoming and in wild deer in Nebraska, South Dakota, Wisconsin, New Mexico, and Saskatchewan. It has also been found on elk farms in a number of states.

### **How is CWD transmitted?**

Transmission is not completely understood, but animal to animal contact is a likely route. It may be transmitted from doe to fawn. The disease may be transmitted through the environment when contaminated with the agent.

### **How does CWD affect deer and elk?**

CWD is a disease of the brain and the animals displays abnormal behavior, develops chronic weight loss, and dies. Signs include listlessness, lowering of the head, blank facial expression, teeth grinding, loss of appetite, drooping ears, and repetitive walking in set patterns. CWD is a slow progressive disease and is usually not seen until the animal is 18 months or older.

### **Can humans get CWD?**

There is no evidence that this disease has been transmitted to people. There have been several reports of suspected human cases; however, investigation of those cases revealed other nervous system diseases, not chronic wasting disease.

### **Are deer safe to eat?**

The risk of contracting CWD is considered low; however, any animal showing signs of illness should not be eaten. To reduce the risk, brain, eyeballs, spinal cord, spleen, or lymph nodes from healthy appearing deer should not be consumed. See links for more detailed instructions on dressing and preparing venison.

### **Links**

<http://www.in.gov/dnr/deerhealth/cautions.htm>

<http://datcp.state.wi.us/ah/agriculture/animals/disease/chronic>

## About... *Conjunctivitis (Pink eye, Red eye)*

### **What is conjunctivitis?**

Conjunctivitis is an eye condition that may have many different causes including viruses, bacteria, allergies, or objects in the eye.

### **What are the symptoms of conjunctivitis?**

Symptoms may begin with tearing, irritation and "blood-shot" appearance of one or both eyes.

Then, swelling of the eyelid(s), sensitivity to light, and a pus-like discharge may follow.

In some types of conjunctivitis, there may be blurred vision, pain, headache, low-grade fever, and tiredness.

### **How is conjunctivitis spread?**

Ways that conjunctivitis is spread include:

- direct contact with the infected person's eye drainage or drainage from the person's cough, sneeze, or runny nose;
- indirect contact with objects that may have an infected person's drainage on them (for example, eye make-up applicators, clothing, surfaces, or shared eye medications);
- the virus might also be on the infected person's fingers.

### **How is conjunctivitis treated?**

For conjunctivitis caused by bacteria, antibiotic eye ointment is prescribed by a physician. There is no antibiotic ointment for conjunctivitis caused by viruses.

### **How can conjunctivitis be prevented?**

- Call your healthcare provider if you have any eye discomfort.
- Always wash hands with soap and water prior to and after any contact with a person that has conjunctivitis.
- Avoid putting hands to eyes as much as possible.
- Do not share personal articles (such as eye make-up applicators, towels, or eyedroppers) with other people.



## About... *Cryptosporidiosis*

### What is Cryptosporidiosis?

Cryptosporidiosis, (krip-toe-spo-rid-e-OH-sis), often called "crypto", is a disease caused by a very small, one-celled parasite, *Cryptosporidium parvum*, that can live in the intestine of humans and animals. Healthy people recover on their own, but in people with AIDS or others with weak immune systems, crypto can be very serious and even cause death.

### How is Crypto spread?

You can get crypto by eating food contaminated with the stool (bowel movement) of an infected person. Farm animals, such as calves, can pass crypto in their stool. You can also get crypto by swallowing contaminated water from lakes, rivers, streams, swimming pools or hot tubs. Crypto is not killed by chlorine used to treat drinking water.

Crypto can be spread from person-to-person by sex that may involve contact with stool. It may also be spread by touching others with unwashed hands after using the bathroom or by touching items such as diapers or linens soiled with stool and then touching your mouth.

What are the symptoms of Crypto?

- Watery diarrhea (can be several times a day)
- Stomach cramps
- Upset stomach
- Slight fever
- Weight loss

Symptoms of crypto may appear 2 to 10 days after a person becomes infected. In healthy people, symptoms usually last about two weeks or less, but people can recover and get worse again. Some people with crypto may not get sick but can still pass the disease to others. After infection, people can pass crypto in their stool for months. People with weak immune systems may have crypto for a longer time.

### How do I know if I have Crypto?

If you think you have crypto, talk with your doctor about testing. Your doctor will probably ask for a stool sample to test for the parasite.

How is Crypto treated?

There is no drug to cure crypto. There are medicines that can lessen the symptoms. Since diarrhea can cause dehydration, you should drink plenty of fluids. Your doctor can also give you medicine to prevent dehydration.

### How can Crypto be prevented?

- Always wash hands with soap and water:

- after using the bathroom;
- after touching children in diapers;
- after touching anything soiled with stool;
- after touching pets or other animals;
- after gardening;
- and before eating and preparing food.
- Supervise young children when they are washing their hands.
- Practice safer sex.
- Do not touch stool of pets, especially if they are less than six months old.
- Wash or peel all uncooked vegetables and fruits.
- Do not eat or drink unpasteurized milk, dairy products, or juices.
- Avoid swallowing water when swimming and when using hot tubs.
- Do not go swimming or use hot tubs if you have diarrhea and for at least two weeks after diarrhea stops.
- People with AIDS or weak immune systems should consider using bottled or filtered water.

*Filtered water:* Not all filters remove crypto. Look for the words, "reverse osmosis" "absolute one micron" or "NSF Standard 53 for cyst reduction (or removal)" on the filter label.

*Bottled water:* Look for words "reverse osmosis treated", "distilled", "one micron absolute", or filtered through an absolute 1 micron or smaller filter on the label.

## **About... *Cyclosporiasis***

### **What is Cyclosporiasis?**

Cyclosporiasis (sigh-clo-spore-EYE-uh-sis) is an infection caused by a very small, one-celled parasite called *Cyclospora cayetanensis*. In the past, cyclosporiasis was usually found in developing countries, but in the last several years, more infections have been reported in the United States.

### **How is Cyclosporiasis spread?**

You can get cyclosporiasis by eating food, such as fresh fruit, or drinking water contaminated with the stool (bowel movement) of an infected person.

Cyclosporiasis is probably not transmitted person-to-person. It is not known if animals can pass infection to people.

### **What are the symptoms of Cyclosporiasis?**

- Watery diarrhea
- Loss of appetite
- Increased gas
- Stomach cramps
- Nausea
- Vomiting
- Muscle aches
- Fatigue
- Slight fever
- Weight loss

Symptoms of cyclosporiasis may appear about one week after a person becomes infected. Without medicine, the illness may last from a few days to a month or longer. People can feel better and then get worse again. Some people with cyclosporiasis may not get sick but can still pass the disease to others. People who have had the disease before can become infected again.

### **How do I know if I have Cyclosporiasis?**

If you think you have cyclosporiasis, talk with your doctor about testing. Your doctor will probably ask for stool samples to test for the parasite.

### **How is Cyclosporiasis treated?**

Your doctor can prescribe medicine (antibiotics) to treat cyclosporiasis. Since diarrhea can cause dehydration, people with diarrhea should also drink plenty of fluids.

### **How can Cyclosporiasis be prevented?**

- Always wash hands with soap and water:
  - after using the bathroom;
  - after touching anything soiled with stool; and
  - before eating and preparing food.
- Supervise young children when they are washing their hands.
- Wash or peel all uncooked vegetables and fruits.

People who travel outside of the United States can avoid getting cyclosporiasis by following these precautions:

- Drink bottled beverages;
- Do not eat uncooked fruits or vegetables unless you peel them yourself;
- Do not eat foods or beverages from street vendors.

## **About... *Diabetes Mellitus***

### **What is Diabetes Mellitus?**

Diabetes Mellitus refers to a group of diseases characterized by high blood glucose resulting from defects in the body's ability to produce insulin, to properly use the insulin it makes, or both.

### **What are the symptoms of diabetes?**

Some people with diabetes have symptoms, but others do not notice symptoms. If you experience any of the following symptoms, contact your physician:

- frequent urination
- extreme thirst
- extreme hunger
- unusual weight loss
- increased tiredness
- irritability
- blurred vision
- numbness and tingling in the hands and feet
- slow wound healing

### **Who is at risk for developing diabetes?**

Seventeen million Americans have diabetes. Approximately one third are unaware that they have the disease. Diabetes is more common in African Americans, Hispanic/Latino Americans, American Indians, Asian Americans, and Pacific Islanders. Other risk factors include:

- age - 45 or older and overweight
- overweight - Body Mass Index (BMI) greater than or equal to 25
- family history - parent, brother, or sister with diabetes
- inactive lifestyle - exercises less than 3 times a week
- women who had gestational diabetes or delivered a baby weighing more than 9 pounds
- blood pressure greater than 140/90
- abnormal lipid levels

### **The Types of Diabetes:**

**Type 1** - usually occurs in children and young adults, but can appear in adults, with rapid onset. Occurs when the body's immune system attacks the insulin-producing beta cells in the pancreas and destroys them. Thus the pancreas produces little or no insulin and the individual must take insulin through injections or an insulin pump. Approximately 5-10% of individuals have this type of diabetes. (This type had been called juvenile onset or insulin dependent diabetes mellitus, IDDM.)

**Type 2** - develops most often in middle-aged and older adults, but can appear in younger individuals. Occurs when the body fails produce enough insulin or fails to properly use insulin. Type 2 diabetes accounts for 90-95% of all diagnosed cases of the disease. (This type had been called adult onset or non insulin dependent diabetes mellitus, NIDDM.)

**Pre-diabetes** - a condition in which blood glucose levels are higher than normal but are not high enough for a diagnosis of diabetes. People with pre-diabetes are at increased risk for developing Type 2 diabetes within 10 years and for heart disease and stroke. Other names for pre-diabetes that have used in the past are impaired glucose tolerance and impaired fasting glucose. At least 16 million Americans have pre-diabetes.

**Gestational Diabetes** - a temporary insulin resistance that develops only during pregnancy and usually disappears upon delivery, but increases the risk that the mother will develop diabetes later. GDM is managed with meal planning, activity, and, in some cases, insulin. Approximately 4% of all pregnant women are diagnosed per year in the United States, or about 135,000.

### **How do you know if you have diabetes or pre-diabetes?**

A simple blood test for glucose can tell you if you have diabetes. Diabetes is diagnosed when:

- Fasting blood glucose is 126 mg/dl
- 2 random blood glucose levels are 200 mg/dl with symptoms

Pre-diabetes is diagnosed when:

- impaired fasting glucose is 100 up to 125 mg/dl (FBG)
- impaired glucose tolerance is 140 up to 200 mg/dl (2-hr OGTT)

### **What can I do if I have diabetes?**

Every person with diabetes can do several things to help control their blood glucose:

- regular self testing of blood glucose levels
- eat a healthy diet
- get daily physical exercise
- take diabetes medications as prescribed
- check your feet daily
- don't smoke

Have your health care provider do yearly foot exams with a monofilament, urine test to check kidneys, influenza vaccine, lipid profile and dilated eye exam. Have an A1c test twice a year, along with dental exams. And at every doctor visit, have your blood pressure and weight taken and feet inspected. Get one pneumococcal vaccine.

**What can I do if I have pre-diabetes?**

People who have pre-diabetes can delay or prevent type 2 diabetes through modest weight loss and regular physical activity. And even if you are at risk for pre-diabetes, modest weight loss and regular physical activity will delay or prevent pre-diabetes and type 2 diabetes..

## About... *Diphtheria*

### **What is diphtheria?**

Diphtheria is a disease caused by a bacteria that can affect the tonsils, throat, voice box, nose, other mucous membranes or skin, and sometimes it affects the conjunctivae (lining of the eyelid) or genitalia.

### **What are the symptoms of diphtheria?**

Symptoms may develop slowly and include:

- headache and general discomfort;
- fever of 100° to 101° F;
- sore throat, with a yellow-white or gray membrane-like covering; may also be swollen lymph nodes in the neck; and
- in some types of diphtheria, there may be a clear discharge (that may have some blood) coming from the nose.

### **How is diphtheria spread?**

Diphtheria is spread through direct contact with an infected person, or it can be spread by contact with items that an infected person's draining sores have touched.

### **How is diphtheria treated?**

People who have diphtheria must be put into the hospital for medical attention. There are drugs that treat diphtheria that will be administered at the hospital.

### **How can diphtheria be prevented?**

Make sure that you are current on your tetanus-diphtheria (Td) shot (every 10 years), and that your child is current on their DTP or Td series



## About... *E.coli* O157:H7

### What is *E.coli* O157:H7?

*E.coli* is a bacterium that lives in the gut (intestines) of most warm-blooded animals, including humans. There are hundreds of strains of *E.coli*, and most are harmless. However, *E.coli* O157:H7 is one strain that lives in the gut of healthy cattle that can cause severe illness in humans.

### What are the symptoms of *E.coli* infection O157:H7?

Infection often causes severe bloody diarrhea and stomach cramping with little or no fever. Symptoms usually begin 2 to 5 days after exposure and lasts for approximately 5 to 10 days. Some people may only have mild diarrhea without blood OR may have no symptoms at all.

Rarely, people infected with *E.coli* O157:H7 can develop a condition called hemolytic uremic syndrome or "HUS". This condition is very serious and can lead to kidney failure and death. Children under 5 and the elderly are more likely to develop this condition.

### How is *E.coli* O157:H7 spread?

People can be infected with *E.coli* by:

- eating undercooked beef products, particularly ground beef;
- drinking unpasteurized milk and fruit juices, including apple cider;
- eating unwashed raw fruits and vegetables; and
- from swimming in or drinking water that has been contaminated with animal or human waste.

An infected person can pass the bacteria in their stool for up to 2 weeks after their symptoms have stopped. These people can transmit the bacteria to others if they do not wash their hands well after using the toilet. Childcare centers are at risk for outbreaks because of the high number of kids who are not toilet-trained. Family members and playmates of these children are also at risk of infection.

### How is *E.coli* O157:H7 infection treated?

Most people recover without medical treatment, but anyone with bloody diarrhea (especially young children) should contact their doctor. The use of antibiotics or over-the-counter antidiarrheal agents is not recommended. Serious infections that affect the kidneys will require hospitalization and extensive medical care.

### How can *E.coli* O157:H7 infection be prevented?

- Always wash hands with soap and water:
  - after using the bathroom
  - after changing diapers
  - after cleaning the toilet

- after handling soiled towels or linens
  - before eating
- Drink only pasteurized milk products and fruit juices, including apple cider.
- Eat only fruits and vegetables that have been washed well.
- Food Preparation:
  - Use a separate cutting board to prepare raw meats.
  - Cook all ground meat thoroughly (particularly ground beef). Ground beef should be cooked to at least 160°F. If the temperature cannot be checked, cook ground beef until the juices run clear, and the inside is gray or brown throughout (not pink).
  - Use a clean plate for cooked meat. Never return cooked meat back to the same plate used for raw meat.
- If you are served an undercooked hamburger in a restaurant, send it back for further cooking.
- Marinade or BBQ sauce used on raw meat should not be used on cooked meat.

## About... *Ehrlichiosis*

### What is Ehrlichiosis?

Ehrlichiosis is the name given to a disease caused by several bacteria that can infect animals and people. It has been known to infect animals for many years but infections of people have only been recognized in the last 15-20 years. Two types of these bacteria are known to infect people in Indiana.

### How is Ehrlichiosis Spread?

Ehrlichiosis is spread by the bite of either the Lonestar tick or the deer tick. Ticks acquire their infection from small wild living rodents or deer. The tick injects the bacteria into either the animal or human host as it is engorging on blood. Pictures of the ticks that spread this disease in Indiana can be viewed at: [www.ent.iastate.edu/imagegal/tick/aamer/](http://www.ent.iastate.edu/imagegal/tick/aamer/) or [www.ent.iastate.edu/imagegal/tick/iscap/](http://www.ent.iastate.edu/imagegal/tick/iscap/).

### What are the symptoms of Ehrlichiosis?

Some individuals may not become ill or only have very mild symptoms; other may have very severe illness. Usually symptoms appear 5-10 days after the tick has taken a blood meal and fallen from the host. Symptoms may include fever, headache, fatigue, and muscle aches. Nausea and vomiting, diarrhea, cough, joint pains, confusion, and sometimes a rash may also be present.

### How do I know if I have Ehrlichiosis?

You cannot tell without seeing your doctor. Your physician will complete a thorough physical examination and laboratory testing to confirm whether or not you have ehrlichiosis.

### How is Ehrlichiosis treated?

Ehrlichiosis can be treated with appropriate antibiotics, usually a tetracycline antibiotic or doxycycline, but other may be used depending on the patient's age or other health status.

### How Ehrlichiosis can be prevented?

Preventing tick bites is the only way to prevent this disease. Preventing tick bites can be accomplished by:

- Staying out of area where ticks are likely to occur. Keeping high grass, weeds and brush from yards to remove places that serve as harborages for ticks.
- If you do enter area where ticks are likely to be present.
  - Wear long pants and long sleeved light-colored clothing to easily see ticks on clothing and prevent access to skin.
  - Tuck pant legs into sock to prevent ticks from reaching skin of legs or crawling up inside of pant legs.
  - Using repellents containing DEET may be applied to the skin or clothing will discourage ticks from attaching to the body for several hours before needing to be replaced. Products

containing permethrin can be sprayed on your shoes and clothing and will be effective for several days. Carefully follow label directions when using any repellent.

- After leaving a tick infested area do a full body tick check and remove any ticks found with either tweezers, paper tissue, or while wearing gloves. Ticks should be removed by grasping them close to the skin and pulling upward with a steady, even pressure. For additional instructions on tick removals go to:  
[www.cdc.gov/ncidod/dvrd/ehrlichia/Prevention/Prevention.htm](http://www.cdc.gov/ncidod/dvrd/ehrlichia/Prevention/Prevention.htm).

## **About... *Arboviral Encephalitis***

### **What is arboviral encephalitis?**

Arboviral refers to a group of viruses that are transmitted in nature by arthropods that feed on blood and transmit viruses to host animals. Arthropods in the United States that transmit diseases are mosquitoes and ticks.

Encephalitis refers to inflammation of the white and grey matter of the brain. This can be caused by a number of infectious agents.

### **How are arboviral diseases spread?**

People become infected with arboviruses generally by the bite of a mosquito or tick. In the United States there are two tick borne arboviruses, Colorado tick fever and Powassan. These tick-borne viral infections have never been reported in Indiana. Mosquitoes are known to transmit 18 viral diseases in North America; many of them are rarely if ever reported as causing human disease. The arboviruses normally associated with human disease in the United States are Eastern equine encephalitis, Western equine encephalitis, West Nile virus, St. Louis encephalitis, and LaCrosse encephalitis

In addition to mosquitoes, West Nile virus has been found to have been transmitted through blood transfusions, organ transplants, from infected mother to unborn baby and to nursing babies through breast milk.

### **What are the symptoms of arbovirus encephalitis?**

Depending on the virus many infections may go unrecognized or cause a very mild illness. For others such as West Nile fever and Lacrosse, some will have a flu-like illness lasting for several days. Others may have the signs and symptoms of encephalitis: fever, personality changes and confusion, abnormal reflexes, muscle weakness, paralysis, seizures, and cranial nerve paralysis. Individuals with more severe illness may have a long recovery and may have lifetime disabilities resulting from the infection. Death may occur in less than 1% of cases ( West Nile virus) or up to 30% of cases (Eastern equine encephalitis).

### **How do I know if I have an arboviral encephalitis?**

You cannot tell without seeing your doctor. Your physician will complete a thorough history, review of signs and symptoms, physical examination and laboratory testing to confirm whether or not you have encephalitis.

### **How are arboviral encephalitis cases treated ?**

The treatment is supportive to control fever, prevent dehydration, and control and reduce the symptoms of encephalitis. Antibiotics are not effective against viral agents and there are no proven antiviral agents to treat these diseases.

### **How can arboviral encephalitis be prevented?**

Arboviral encephalitis can be prevented by preventing the bites of infected mosquitoes or ticks.

- Avoid outdoors during the hours of dusk to dawn when mosquitoes are most active and avoid high grass and brushy areas where ticks will be present.
- Take personal protective measures
  - Wear long sleeves and long trousers with cuffs stuffed inside top of socks to reduce skin surfaces available for mosquitoes to bite or areas for ticks to attack too.
  - Use an insect repellent containing DEET on clothing and exposed skin.
- Make environmental changes to reduce harborage and breeding sites for mosquitoes and ticks.
  - Clean gutters, remove water or empty regularly water holding container such as buckets, tires, birdbaths, wading pool, and etc. to reduce mosquito breeding sites.
  - Cut weeds and brush from yard to reduce place for tick to hide as well as a rodent harborages to reduce small mammals that could serve as a source of a blood meal for developing ticks.

## About... *Fifth Disease*

### What is fifth disease?

Fifth disease is a common disease of young children. It is caused by the parvovirus B19. The disease is so named because it was the fifth of the childhood rash illnesses to be identified. There are no complications of fifth disease for a normal child.

Fifth disease can cause serious problems to an unborn child. If you are pregnant, and suspect that you have or have been exposed to fifth disease, contact your healthcare provider, immediately.

### What are the symptoms of fifth disease?

In children, the symptoms are:

- low-grade fever;
- symptoms of a mild cold;
- bright red rash on the cheeks (looks like cheeks have been slapped);
- pink, blotchy, itchy (maybe) rash on upper arms and legs; this rash then spreads to the body;
- lacy rash on arms and legs;
- symptoms may come again if the skin becomes red from exercise, sun, or a warm bath.

### How is fifth disease spread?

Fifth disease is probably spread by very close contact, including direct contact, with infected mucus from the nose or mouth or through the air when a person with fifth disease coughs or sneezes. Children can be contagious one week before the rash appears. Once the rash develops, the child is no longer contagious.

### How is fifth disease treated?

Most children with fifth disease do not need medication. Over-the-counter drugs may be given for joint pain and swelling or to reduce itching. There is no need to change a child's diet or to limit activity.

There are no complications in a normal child. If you are worried about your child's illness, or if your child develops a fever over 102° F or has severe joint pains, call your doctor.

### How can fifth disease be prevented?

- Children are contagious before they have a rash or joint pains. Since they feel well or have only a mild illness, they continue to play with other children. Little can be done to stop the spread of this infection.
- Once the rash develops, they are no longer infectious and can return to day care or school.
- Sometimes the rash returns, but the child will not be infectious again.

- Pregnant women should tell their doctor if they have been in contact with infected children one week before the rash appeared.
- Most adults have had fifth disease as a child and are no longer at risk for catching the disease.



## **About... *Giardiasis***

### **What is giardiasis?**

Giardiasis (gee-are-DYE-a-sis) is a disease caused by a parasite. It can live in the intestines of animals and people.

### **What are symptoms of giardiasis?**

- diarrhea
- gas
- bloating
- stomach cramps
- nausea
- weight loss
- Some may even be constipated
- There may be no symptoms

### **How is giardiasis spread?**

The parasite is passed in an infected person's stool when they have a bowel movement.

- Giardiasis is most often spread from person to person on hands that have not been washed after using the bathroom. Many cases are spread in families and in child care settings.
- Drinking untreated water from lakes, ponds, and streams
- Oral-anal sex
- Contact with animals

### **How do I know if I have giardiasis?**

You cannot tell without seeing your doctor. You may be asked to give the doctor a stool sample.

### **Can giardiasis be cured?**

Yes, drugs can cure giardiasis. Over-the-counter drugs may relieve symptoms, but will not get rid of the parasite.

### **How can I protect myself and my family?**

- Always wash hands after using the bathroom.
- Always wash hands after changing a diaper.
- Always wash hands before fixing or eating food.

- Use child care centers that have excellent hygiene, including:
  - staff washes hands after changing each diaper;
  - staff cleans changing area after each child;
  - children must wash hands often;
  - children must wash hands after using the toilet; and a,
  - clean, sanitary facility.
- Be sure well or septic systems meet sanitation codes. If you do not know, have water tested.
- If camping, use only public water supplies and drink only boiled or bottled drinks.
- Do not drink from lakes or streams, even if water is clear.
- Have dogs and cats checked for parasites by your vet. Also, have animals with diarrhea tested.
- If traveling to developing countries or Eastern Europe, it is recommended that you:
  - eat only fruits & vegetables you wash or peel yourself;
  - do not eat salads;
  - drink only boiled or bottled drinks;
  - do not use ice unless made with treated water; and
  - properly cooked foods and water in , "first class" hotels are usually safe foods.

## **About... *Hand, Foot, and Mouth Disease (HFMD)***

### **What is Hand, Foot, and Mouth Disease?**

HFMD is a common virus of infants and children. Children may develop ulcers on the tongue or gums and water blisters or red spots on palms, bottom of feet and in the buttock area.

### **Can I get HFMD from an animal?**

No, humans are the only natural host for enteroviruses.

### **How is HFMD spread?**

The fecal-oral route or the oral-oral route transmits the virus.

### **What is the treatment for HFMD?**

There is no specific therapy available.

### **Is there a vaccine available?**

No, there is no vaccine available.

### **Should my child be excluded from school?**

Removal of the child from a daycare or school is not as long as there is no fever, weeping lesions, or excessive drooling. The child should be kept home until the fever disappears. Normal activity may be resumed gradually as tolerated.

### **Is there anything that can be done to control the spread of HFMD?**

Yes, frequent handwashing is the best way to reduce the spread of HFMD. You can boil eating utensils and bottle nipples for 20 minutes and let them air dry.

### **What are the signs and symptoms of HFMD?**

The signs and symptoms are sudden fever, headache, appetite loss, and sore throat with blisters, ulcers in the mouth and throat, and rash with blisters on the hands, feet and groin.

### **When does HFMD occur?**

Summer and fall seasons.

### **Are there any foods that should be avoided?**

Yes, citrus, salty, acid, or spicy food should be avoided because the ulcers may cause discomfort when irritated. Offer foods that do not need much chewing. Encourage plenty of clear fluids, and cold drinks. Have the child rinse mouth with warm water after meals.

## **About... *Hand Washing***

### **Why is hand washing important?**

Unwashed or poorly washed hands are a very common way of spreading many diseases, such as: colds, flu, ear infections, strep throat, diarrhea, and other intestinal problems.

Germ and viruses causing these diseases are passed by such routine things as handling food, touching doorknobs, shaking hands, and putting your mouth on a telephone receiver. The spread of many germs and viruses can be reduced by hand washing with soap and water.

### **When should I wash my hands?**

- After using bathroom
- After blowing nose, sneezing, or coughing
- Before eating or handling food
- After handling uncooked meat
- After taking out the trash
- After changing a diaper
- After handling money
- After playing with a pet, especially reptiles, iguanas, turtles, snakes

Also, try not to touch your mouth, eyes, or ears when hands are unwashed.

### **How do I properly wash my hands?**

- Use hot or warm running water.
- Lather hands with soap (any kind).
- Rub hands together for at least 10 seconds.
- Wash the back of hands, between fingers, and under fingernails.
- Rinse with warm water
- Pat hands dry, beginning at the wrist and moving down.
- Turn off water, using a paper towel.

### **How can hand washing help protect me and my family?**

Food-borne illness outbreaks often are caused by poor hygiene, usually unwashed or poorly washed hands on the part of the foodhandler. Many diarrheal illnesses (salmonellosis, hepatitis A, shigellosis) can be passed from person to person when someone doesn't wash his hands after using the bathroom and then passes it along to someone else by handling food, shaking hands, or touching something. The

organism gets into the other person's mouth and he gets sick. Unwashed or poorly washed hands are responsible for 1 in 4 foodborne illnesses.

Hand washing is the single most important way of preventing the spread of infections, according to the U. S. Centers for Disease Control and Prevention (CDC). Hand washing is the most available "low-tech" prevention of illnesses.

People must take personal responsibility for developing the hand washing habit.

- Parents should teach their children the proper way to wash their hands.
- Children should see their parents and other care givers washing their hands frequently.
- Consumers need to let restaurants, day cares, doctors, hospitals, and nursing homes know they are concerned about personal hygiene and infection control in their facilities.

## **About... *Hantavirus Pulmonary Syndrome***

### **What is Hantavirus pulmonary syndrome (HPS)?**

Hantavirus pulmonary syndrome refers to an acute respiratory disease caused by the Sin Nombre virus. The disease was first identified as being caused by the Sin Nombre virus in the four corners area (where borders of New Mexico, Arizona, Utah, and Colorado join) in 1993. There is evidence of people dying of the disease at least back to 1959. Indiana has had two cases of hantavirus pulmonary syndrome identified since 1993. There are several other viruses that cause similar disease in the United States and in South America

### **How is HPS spread ?**

The reservoir of Sin Nombre virus has been identified primarily as the deer mouse. Cotton rats, rice rats, and white footed mice each carry a virus that can cause HPS. These rodents shed the virus in their saliva and urine. Transmission to people occurs when:

- When people sweep or otherwise clean areas where rodent urine and saliva are present small droplets are “aerosolized” and inhaled.
- When bitten by a rodent and contaminated saliva enters the wound.
- Items contaminated with rodent urine or saliva are handled and then hands touch the nose or mouth prior to washing hands.
- Food contaminated by urine, droppings or saliva from rodents.

### **What are the symptoms of HPS?**

Individuals with HPS exhibit fatigue, muscle aches, headaches, dizziness, chills, nausea, vomiting, diarrhea, abdominal pain, fever, rapid difficult breathing, cough, rapid heartbeat, and sometime low blood pressure. The incubation time is thought to be 1 to 5 weeks.

### **How do I know if I have HPS?**

You cannot tell without seeing your doctor. Your physician will evaluate clinical symptoms, conduct a thorough physical examination, chest x-rays, and laboratory testing to confirm whether or not you have HPS

### **How is HPS treated?**

There is not a definitive treatment for HPS. Physicians provide supportive care in hospitals until the body's immune system overcomes the infection.

### **How is HPS prevented?**

HPS is prevented by taking steps to reduce the exposure to contaminated mouse urine and saliva. Steps that can be taken are:

- Clean up around the outside of your home to remove harborages and breeding sites for rodents.

- Rodent proof your house, garage, and other out buildings. Keep bird and pet food covered to prevent their use as food by rodents. Clean up spills immediately. Keep all foods in rodent proof containers. Keep garbage in covered containers. Seal all rodent entry holes  $\frac{1}{4}$  inch or larger with wire screening or other rodent proof materials.
- If you see evidence of rodents dropping or urine, clean the area with a “wet technique”. Use a household disinfectant on the contaminated surfaces prior to trying to sweep or mop the area. Set traps. Use EPA approved rodent poisons following label directions.
- Be sure to wash hand after handling or cleaning possibly contaminated surfaces. Wear a mask if sweeping areas where rodents have likely been.
- Increasing ventilation in rooms where there is evidence of rodents having been present prior to cleaning is also helpful in reducing the amount of virus present and reduces the risk of transmission..

## **About... *Head lice (Pediculosis)***

### **What are head lice?**

To have head lice is to have adult lice and nits (lice eggs) in the hair, eyebrows or eyelashes. Lice are wingless, grayish insects, about 2 millimeters in length. They live close to the scalp and depend on human blood to live. Adult lice live about 20 to 30 days, and lay 4 to 5 eggs every day.

### **What are the symptoms of head lice?**

The main symptom is itching. The scalp may appear red from scratching. Lice and nits can be seen in hair.

### **How are head lice spread?**

Lice are spread by direct contact with an infected person's head or personal belongings, such as combs, brushes, jackets or hats.

### **How are head lice treated?**

- Medicine to treat lice can be purchased at any drug store. Follow directions completely.
- Nits should be removed after treatment.
- Retreatment is often necessary 7 to 10 days later, in case some eggs survived the first treatment.
- Wash and dry on hot setting: bed linens, hats, etc. Alternatively, these items can be dry cleaned.
- Boil combs and other personal items that come in contact with hair.

### **How can head lice be prevented?**

- Do not use hairbrushes, combs or hats that belong to other people.
- If infected, use treatment as directed.



## **About... *Hepatitis A***

### **What is Hepatitis A?**

Hepatitis A is a liver disease caused by the hepatitis A virus which is found in the stool (bowel movement) of an infected person. It rarely causes long-term damage or death.

### **How is it spread?**

Hepatitis A virus is spread from person to person by putting something in the mouth that has been contaminated with the stool of a person with hepatitis A. This type of transmission is called "fecal-oral." For this reason, the virus is more easily spread in areas where there are poor sanitary conditions or where good personal hygiene is not observed.

Most infections result from contact with a household member or sex partner who has hepatitis A. Casual contact, as in the usual office, factory, or school setting, does not spread the virus.

### **What are the symptoms?**

Persons with hepatitis A virus infection may not have any signs or symptoms of the disease. Older persons are more likely to have symptoms than children. If symptoms are present, they usually occur abruptly and may include:

- Tiredness
- Stomach pain
- Fever
- Dark urine
- Loss of appetite
- Yellowing of skin & eyeballs (jaundice)
- Nausea

Symptoms usually last less than 2 months; a few persons are ill for as long as 6 months. The average incubation period for hepatitis A is 28 days (range: 15–50 days).

### **Who is at risk for hepatitis A?**

- People who live with or have sex with an infected person.
- Children and staff of child care centers where a child or employee has hepatitis A.
- Residents and staff of centers for disabled children when a child or employee has hepatitis A.
- Travelers to countries where hepatitis A is common and where there is little clean water or proper sewage disposal.

### **Is there a cure?**

No. There is no medicine for hepatitis A once you have it.

**How can hepatitis A be prevented?**

- Always wash hands after using the bathroom.
- Always wash hands after cleaning the toilet.
- Always wash hands after changing diapers.
- Always wash hands after handling soiled towels or linens.
- Always wash hands before fixing food or eating.
- If exposed to hepatitis A, ask doctor about immune globulin.
- If traveling to areas where hepatitis A is common:
  - get vaccinated before travel;
  - drink bottled beverages; and
- do not eat uncooked fruits or vegetables, unless you peel them yourself.

## **About... *Hepatitis B***

### **What is hepatitis B?**

Hepatitis B is a serious disease of the liver caused by a virus. Hepatitis B can lead to severe illness, liver damage, and sometimes death.

### **How is it spread?**

You get hepatitis B by direct contact with blood or certain body fluids, such as semen and vaginal secretions, of a person who has it. For example, you can get it by having sex or by sharing needles with a person who has it. It may also be spread within households if razors, toothbrushes or other items are shared. A baby can get it from its mother during birth. Approximately 25 percent of all persons with hepatitis B have no idea how they got it.

### **How can hepatitis B be prevented?**

There is a very safe and effective vaccine. It is recommended for all children aged 0 months to 18 years and for people who are at risk for hepatitis B (see below).

### **Who is at risk for hepatitis B?**

One out of every 20 people will get hepatitis B some time in their lives. Your risk is higher if you:

- are born to a mother who has the hepatitis B;
- have a job that exposes you to blood;
- live in the same house with someone who has lifelong hepatitis infection;
- have sex with a person who has hepatitis B
- have sex with more than one person in a six month period;
- are a man and have sex with a man;
- shoot drugs;
- are a patient or work in a home for the developmentally disabled;
- were born or have parents who were born in Southeast Asia, Africa, the Amazon Basin in South America, the Pacific Islands, Eastern Europe, or the Middle East;
- are a patient on hemodialysis; or
- have hemophilia.

### **What symptoms should I watch for?**

Half of all adults do not have any symptoms. It takes between six weeks and six months to get sick after you contract the virus. If you have symptoms, they might be:

- yellowing of the eyes or skin;

- lack of appetite;
- nausea, vomiting;
- fever;
- stomach pain;
- pain in joints;
- extreme fatigue;
- dark urine

### **Do people usually recover from hepatitis B?**

Most adults (90 percent) recover from hepatitis B after several months. They clear the infection from their bodies and become immune. People who are immune will not get hepatitis B again and they cannot pass hepatitis B to others.

### **Who is a carrier of hepatitis B?**

About 10 percent of adults and most children under 5 years old infected with hepatitis B are unable to clear the infection from their bodies. These individuals no longer have symptoms but still carry the virus in their body. A carrier of hepatitis B can infect others. About 1.25 million people in the U.S. carry hepatitis B for life.

### **Is there any treatment for hepatitis B?**

Some people who are carriers have benefited from treatment. Your health care provider can discuss treatment with you.

### **If you are pregnant, should you worry about hepatitis B?**

Pregnant women who are infected with hepatitis B can spread the disease to their babies. Most babies will develop hepatitis B infection if they don't get special medicine and hepatitis B vaccine shortly after birth.

## **About... *Hepatitis B* Carriers**

### **Who is a carrier of hepatitis B?**

About 10 percent of adults and most children less than 5 years old infected with hepatitis B are unable to clear the infection from their bodies. These individuals no longer have symptoms but still carry the virus in their body.

### **How would I know if I am a carrier of hepatitis B?**

Most people do not know they are carriers of hepatitis B unless they get a blood test. A carrier usually has no signs or symptoms of hepatitis B, but will be infected for the rest of his/her life and is capable of passing the disease to others. Although most carriers have no serious problems with hepatitis B, some carriers develop liver problems later. If your blood test is positive for hepatitis B surface antigen twice, six months apart, then you are considered a hepatitis B carrier. About 1.25 million people in the U.S. have chronic hepatitis B infection.

### **Is there any treatment?**

Some people who are carriers have benefited from treatment. Your health care provider can discuss treatment with you.

### **How did I get my infection?**

You can get hepatitis B by direct contact with blood or certain body fluids, like semen or vaginal secretions, of a person who has it. For example, you can get it by having sex or sharing needles with a person who has it. A baby can get it from its mother during birth. It may be spread within households if razors, toothbrushes, or other personal items are shared. Approximately 25 percent of all persons with hepatitis B have no idea how they got it.

### **How can I take care of myself?**

Hepatitis B carriers should see a doctor regularly. Blood tests may be needed to check how the liver is working. Hepatitis B carriers should avoid alcohol because alcohol can further damage the liver. Your doctor should know about the medicines you are taking, even over-the-counter, because some medicines can hurt the liver. You should get the hepatitis A vaccine to avoid further liver damage should you get exposed to the hepatitis A virus.

### **How can I keep my family and friends from getting this?**

- Talk to your health care provider or local health department about prevention and protection for your family and friends.
- Ensure anyone living in your household gets the hepatitis B vaccine.
- If you are a parent, make sure your children receive the hepatitis B vaccine.
- Inform any sexual partners that they should be tested for hepatitis B.
- Do not have unprotected sex.

- Do not let anyone touch your blood or body fluids.
- Do not share needles.
- Do not share personal items, such as toothbrushes or razors.
- If you are pregnant, be aware that your newborn will need special medicine and the hepatitis B vaccine within 12 hours of birth.

**Why does my baby need medicine and vaccine shortly after birth?**

Pregnant women who are infected with hepatitis B can spread the disease to their babies. Most babies will develop lifelong hepatitis B infection if they don't get special medicine and hepatitis B vaccine shortly after birth.

## **About... *Hepatitis B* Contacts**

### **What is hepatitis B?**

Hepatitis B is a serious disease of the liver caused by a virus. Hepatitis B can lead to severe illness, liver damage, and sometimes death.

### **How is it spread?**

You get hepatitis B by direct contact with blood or certain body fluids, such as semen and vaginal secretions, of a person who has it. For example, you can get it by having sex or sharing needles with a person who has it. It may also be spread within households if razors, toothbrushes or other items are shared. A baby can get it from its mother during birth. Approximately 25 percent of all persons with hepatitis B have no idea how they got it.

### **Who is at risk for hepatitis B?**

One out of every 20 people will get hepatitis B some time in their lives. Your risk is higher if you:

- are born to a mother who has the hepatitis B;
- have a job that exposes you to blood;
- live in the same house with someone who has lifelong hepatitis infection;
- have sex with a person who has hepatitis B
- have sex with more than one person in a 6 month period;
- are a man and have sex with a man;
- shoot drugs;
- are a patient or work in a home for the developmentally disabled;
- were born or have parents who were born in Southeast Asia, Africa, the Amazon Basin in South America, the Pacific Islands, Eastern Europe, or the Middle East;
- are a patient on hemodialysis; or
- have hemophilia.

### **What symptoms should I watch for?**

Half of all adults do not have any symptoms. It takes between six weeks and six months to get sick after you contract the virus. If you have symptoms, they might be:

- yellowing of the eyes or skin;
- lack of appetite;
- nausea, vomiting;

- fever;
- stomach pain;
- pain in joints;
- extreme fatigue;
- dark urine

### **How can I protect myself?**

- Talk to your health care provider or call your local health department for information about hepatitis B.
- Hepatitis B vaccine is recommended for people who have had contact with a person with hepatitis B (three doses give long-term protection). The vaccine is safe and effective.
- Your doctor may also recommend a shot of Hepatitis B Immune Globulin (gives fast protection, but doesn't last long).
- See your doctor immediately if you become ill. The doctor will need to do blood tests and will advise you on how to protect yourself and your family.

### **Who is a carrier of hepatitis B?**

Sometimes, people who have hepatitis B never recover fully and still carry the virus in their body. About 1.25 million people in the U.S. carry hepatitis B. They can infect others for the rest of their lives. Periodic follow up visits to the doctor are recommended, even if individuals no longer feel ill.



## **About... *Hepatitis C***

### **What is Hepatitis C?**

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV) which is found in the blood of infected people. Some people who get hepatitis C may never fully recover and may carry the virus the rest of their lives. Some people become very ill and some have liver failure.

### **What are the symptoms?**

Most people have no symptoms, but can still infect others. If you have hepatitis C, you may have:

- yellowing of the skin and eyes
- loss of appetite
- nausea and vomiting
- fever
- tiredness
- stomach pain

### **How is hepatitis C spread?**

HCV is spread primarily by direct contact with human blood. For example, you may have gotten infected with HCV if:

- You ever injected street drugs, as the needles and/or other drug "works" used to prepare or inject the drug(s) may have had someone else's blood that contained HCV on them.
- You received blood, blood products, or solid organs from a donor whose blood contained HCV.
- You were ever on long-term kidney dialysis as you may have unknowingly shared supplies/equipment that had someone else's blood on them.
- You were ever a healthcare worker and had frequent contact with blood on the job, especially accidental needlesticks.
- Your mother had hepatitis C at the time she gave birth to you. During the birth her blood may have gotten into your body.
- You ever had sex with a person infected with HCV.
- You lived with someone who was infected with HCV and shared items such as razors or toothbrushes that might have had his/her blood on them.

### **How can you know if you have hepatitis C?**

A blood test for HCV can tell if a person has ever been infected.

### **If infected, what should I do to protect others?**

- Do not share tooth brush, razor, or other items that could come in contact with blood.
- Cover open sores or other breaks in your skin.
- Do not donate blood, plasma, body organs, or sperm.

**What can a person with Hepatitis C do to protect their liver?**

- Stop drinking alcohol.
- See your health care provider regularly.
- Talk to your health care provider before using over-the counter or herbal medicine.
- Get vaccinated against Hepatitis A.

Talk to your health care provider to see if you should get the Hepatitis B vaccine or any other recommended vaccines.

## **About... *Hepatitis E***

### **What is Hepatitis E?**

Hepatitis E is a liver disease caused by the hepatitis E virus, which is found in the stool (bowel movement) of an infected person. In most people it does not cause long-term liver damage or death, but can cause very serious infection in women who are in the last three months of pregnancy.

### **How is Hepatitis E spread?**

You can get hepatitis E by eating food or drinking water contaminated with the stool (bowel movement) of an infected person. It is usually spread by drinking contaminated water. In the United States almost all infections with hepatitis E occur in travelers returning from areas of the world where hepatitis E is common, such as Mexico, parts of Africa, parts of the Middle East, India, and China.

It may also be spread from person-to-person by touching others or handling food with unwashed hands after using the bathroom or touching items such as diapers or linens soiled by stool and then touching your mouth.

### **What are the symptoms of Hepatitis E?**

- stomach pain
- loss of appetite
- dark urine
- fever
- jaundice (yellowing of skin and eyeballs)
- nausea
- vomiting
- tiredness

People are most contagious from about two weeks before symptoms begin until two weeks after. Most people start to have symptoms about five or six weeks after exposure. Some people, especially children, may have no symptoms but still can spread the virus.

### **How do I know if I have Hepatitis E?**

You cannot tell without seeing your doctor. You need to have a blood test to see if you are infected with hepatitis E.

### **How is Hepatitis E treated?**

There is no medicine to cure hepatitis E once you have it. There is no vaccine (shot) to prevent hepatitis E infection or medicine to prevent or lessen symptoms. Anyone with the symptoms listed above, especially if they have traveled recently outside of the United States, should see a doctor.

## **How can Hepatitis E be prevented?**

If you are traveling to an area where hepatitis E is common, follow these precautions:

- Drink bottled carbonated beverages. Drink bottled water only if it is from a known safe supply and the bottle is unopened.
- Do not use ice or eat anything with ice unless the ice is made from bottled water.
- Do not eat uncooked fruits or vegetables unless you peel them yourself.
- Do not eat undercooked or raw seafood.
- Do not eat foods or beverages from street vendors.

## **About... *Histoplasmosis***

### **What is histoplasmosis?**

Histoplasmosis (histo) is a disease caused by the fungus *Histoplasma capsulatum*. The disease primarily affects the lungs, but may affect other organs as well. The disease may occur in several forms. The most common form is asymptomatic (individuals exhibit no symptoms even though infected).

### **Where does histoplasmosis come from?**

Histo is a fungus that lives in soil, especially moist soil that has been enriched with organic material such as wild bird droppings or poultry house litter. Histo does not infect birds nor is it found in their droppings, but may be found in bat droppings. When composted, bird and bat droppings do provide conditions that allow histo to multiply. Histo is found throughout the world including the United States, and especially the Ohio River valley.

### **How can humans get histoplasmosis?**

Humans acquire the disease by breathing in the *Histoplasma capsulatum* spores. These spores become airborne from sites where histo contaminates the ground. Sites such as excavation projects near old bird roost, remodeling or cleaning old buildings where birds or bats have roosted, cleaning poultry houses, which haven't been cleaned for years. Sometimes the spores can be carried for long distances by winds and the actual source of the spores is not known.

### **What are the symptoms of histoplasmosis?**

Many people have no symptoms. Those who do have symptoms generally have a mild illness with fever, cough, chest pain, and fatigue. More severe illness may result in pneumonia, enlargement of lymph nodes, joint pain, muscle pain, and painful red lumps on the arms and legs. Very few patients may have much more severe symptoms with chronic histo and may experience productive cough, chest pain, weight loss, night sweats and fatigue. Patients with impaired immune systems may have a severe form of the disease with disseminated histo. This form of the disease can affect the bone marrow, internal organs, and even the brain.

The incubation time (time from exposure to symptoms appear) may vary from 3 to 17 days, with around 10 days being the average.

### **How is histoplasmosis diagnosed?**

Chest X-rays, blood test, and even urine test which physicians can use to diagnose the disease in patients with symptoms.

### **Can histoplasmosis be treated?**

Most people do not require any treatment. For those more severely ill there are anti-fungal drugs that physicians may prescribe.

### **How can histoplasmosis be prevented?**

Regular cleaning of poultry housing or cleaning up of bird dropping will prevent the accumulation of droppings sufficient to provide the environment for histo growth. The ground under known bird roost should not be disturbed unless the ground can be kept moist to prevent dusty conditions. Workers who

are cleaning up accumulations of bird droppings should wear a tight fitting mask and keep the droppings wet to prevent dusty conditions.

Individuals who are going to clean up potentially histoplasma contaminated sites should consult the National Institute for Occupational Safety and Health (NIOSH) and the National Center for Infectious Diseases (NCID) booklet, Histoplasmosis: Protecting Workers at Risk. The NIOSH Internet home page, [www.cdc.gov/niosh/homepage.html](http://www.cdc.gov/niosh/homepage.html) provides information on how to obtain a copy.

## **About... *HIV***

### **What is HIV?**

HIV (human immunodeficiency virus) is the virus that causes AIDS (acquired immunodeficiency syndrome). HIV damages the immune system, eventually destroying the body's ability to fight off infections and cancers. About half of those with HIV develop AIDS within 10 years of becoming infected.

### **How is HIV spread?**

HIV is spread from one person to another by getting into the blood. The main ways people become infected with HIV are:

- having unprotected sex with someone who has the virus.
- sharing needles or syringes with someone who has the virus.
- from infected mother to baby, during pregnancy, birth, or in breast feeding

The virus is NOT spread from person to person by casual, every-day contact. It is not spread in the air.

### **What are the symptoms of HIV infection?**

A few weeks after infection, people with HIV may develop flu-like symptoms. Others may not notice any symptoms. Severe symptoms, coming much later and lasting for a long time, might be fever, swollen glands, extreme tiredness, and night sweats.

However, most people with HIV do not know they have it. They may look and feel healthy, yet infect others. HIV can be active inside your body for years before it starts to create problems.

### **How can I tell if I have HIV?**

The only way to tell if you have HIV is by taking an HIV test. Call the Indiana HIV/STD Hotline for additional information or counseling/testing locations.

### **Who is at risk for getting HIV?**

You are at risk for HIV if you:

- Share needles and syringes
- Have unprotected sex with anyone who injects drugs
- Have unprotected sex with men who have sex with other men
- Have other sexually transmitted diseases (STDs)
- Have unprotected sex with men or women

### **How is HIV treated?**

New treatments, including protease inhibitors, offer great hope for treating HIV disease. Persons who find out early they are infected are better able to combat HIV disease.

### **How can I protect myself from getting HIV?**

The best way to protect yourself from HIV is to avoid coming into contact with another person's blood, semen vaginal fluids, or breast milk. Other ways to reduce your risk are:

- Avoid the use of drugs and alcohol
- Follow the "safer sex" practices of having only one sex partner and
- using latex condoms or other barriers
- Use clean needles if you do inject drugs
- Encourage friends to follow these practices, also

### **Where can I get more information?**

National AIDS Hotline 1-800-342-2437

1-800-344-7432 (Spanish)

1-800-243-7889 (deaf access)

### **Centers for Disease Control and Prevention (CDC)**

HIV Disease Directory 1-404-332-3555 (recorded voice information)

1-404-332-4565



## **About... *Immunizations for Flood Victims and Workers***

### **What do I need to know?**

Outbreaks of communicable diseases after floods are unusual.

However, diseases may increase because of problems with sanitation or crowded living conditions.

**Flood victims and workers may be exposed to tetanus by wounds received from varying circumstances.**

If you receive a puncture wound, laceration or abrasion, see your doctor or check with your health department about any special health needs.

### **Do I need any special vaccinations?**

- A tetanus-diphtheria (Td) booster is recommended for all adults every 10 years.
- Any adult who has not had the primary series of Td doses, should complete the series.
- Children should have completed their recommended immunization doses.
- Vaccinations for conditions such as hepatitis A or B, cholera, malaria, or typhoid fever are not recommended.

### **What should I do if I or a member of my family needs immunizations or vaccinations?**

Call your doctor or clinic. You may also call the health department for assistance.

## **About... *Influenza A ("the flu")***

### **What is Influenza A?**

Influenza A is one of the viruses that causes "the flu." The flu is a viral infection of the breathing tubes and lungs, but also has symptoms of sore throat, muscle aches, headache, and feeling generally ill. Anyone can become infected, but the elderly and young children, or anyone with certain health problems, may become seriously ill or die from the flu or its complications.

### **How is the flu spread?**

It is spread from one person to another through sneezing or coughing. The virus is taken into the body through the nose or mouth. Even someone who does not yet feel sick, can pass the virus to others.

### **What are the symptoms?**

- Fever
- Chills
- Headache
- Dry cough
- Sore throat
- Muscle aches

Symptoms can last 2 to 7 days.

### **How can I protect myself from influenza A?**

The best protection is to get vaccinated against flu every year before the flu season starts. Each year the vaccine contains the types of flu virus expected to cause illness in the coming year. The vaccine begins to protect you after 2 weeks.

To prevent the spread of ALL respiratory infections, including influenza, good respiratory hygiene is important.

- Serious respiratory illnesses like influenza are spread by coughing or sneezing and unclean hands.
- To help stop the spread of germs, cover your mouth and nose with a tissue when you cough or sneeze. If you don't have a tissue, cough or sneeze into your upper sleeve, not your hands. Put your used tissue in the wastebasket.
- To clean your hands after coughing or sneezing, wash with soap and water, or clean with alcohol-based hand cleaner.

### **Who should get the vaccine (flu shot)?**

Every year, more than 20,000 Americans die from influenza-related complications. Although most healthy adults recover without complications, some people are at risk for getting a serious case of the flu or a complication and should get the flu shot, including the following:

- Adults 65 years of age or older
- People 24 months to 64 years of age with chronic medical conditions
- Children 6 to 23 months of age
- Women who are pregnant during influenza season
- Residents of long term care and nursing home facilities
- Persons age 6 months to 18 years on long term aspirin therapy
- Health care workers with direct patient contact
- Household contacts and out-of-home caregivers of children 0-6 months of age

The live attenuated influenza vaccine (FluMist) should be used to immunize:

- health care workers working in direct patient care (although not in contact with severely immunocompromised persons)
- healthy individuals 5-49 years of age in close contact with infants 0-6 months of age (household contacts or out-of-home caregivers).”

### **Are there other kinds of Influenza?**

Yes, and the vaccine protects you against influenza B, as well. Symptoms are similar, but complications are not as serious.

## **About... *Legionellosis***

### **What is Legionellosis?**

Legionellosis is an infection by the bacterium *Legionella pneumophila*. The disease has two forms:

- Legionnaires' disease –which includes pneumonia and more severe
- Pontiac Fever- which pneumonia is not present and is milder

### **What are the symptoms of Legionellosis?**

Persons with Legionnaires' disease usually have fever, chills, and cough. Some may also have muscle aches, headache, loss of appetite and sometimes diarrhea. Chest X-ray's most often show pneumonia.

### **How can humans get Legionellosis?**

People of any age may get Legionnaires' disease, most often it affects middle-aged and older persons who smoke tobacco containing products or have other chronic diseases. Pontiac fever most commonly occurs in persons who are otherwise healthy. Legionnaires' disease is transmitted by breathing in water contaminated with *Legionella pneumophila*. The source of infection may come from water contaminated in the patient's home or workplace. Outbreaks have been associated with a common-source exposure to contaminated water towers, evaporative condensers, potable water systems, whirlpool spas, humidifiers, and respiratory therapy equipment. Outbreaks have occurred in hospitals, cruise ships, hotels, and other large buildings. Bacteria reproduce in high numbers in warm stagnant water (90F-105F). It is believed to occur worldwide.

### **How is Legionellosis diagnosed?**

*Legionella* is diagnosed by testing the respiratory secretions, lung tissue, urine, fluid from the lungs for the *Legionella* bacteria.

### **How is it treated?**

The treatment varies depending on how serious the person is infected. Generally, people are treated with antibiotics. Pontiac Fever generally requires no specific treatment.

### **How can Legionellosis be prevented?**

Improved design and maintenance of cooling towers and plumbing systems to limit the growth and spread are the foundations of Legionellosis prevention. Current research will likely identify additional prevention strategies.

## **About... *Listeriosis***

### **What is Listeriosis?**

Listeriosis (list-ear-ee-OH-sis) is a disease caused by *Listeria monocytogenes* bacteria which live in soil and water. Healthy children and adults can get infected with *Listeria* but usually do not get very sick. However, this illness is very serious in pregnant women, newborns, elderly people, and people with weak immune systems.

### **How is Listeriosis spread?**

You can get listeriosis by eating food contaminated with *Listeria* bacteria. Vegetables can be contaminated with soil or manure. Raw foods, such as uncooked meats, and processed foods, such as soft cheeses and cold cuts, can also be contaminated. Animals can have the bacteria without being sick and can pass the bacteria to meats and dairy foods.

Listeriosis can be spread person-to-person from mother to baby during pregnancy. It is not spread by other person-to-person contact.

### **What are the symptoms of Listeriosis?**

- Fever
- Muscle aches
- Nausea
- Vomiting
- Diarrhea

Symptoms usually begin 4-21 days after eating contaminated food. Healthy people usually do not have any symptoms, while others may have a mild, flu-like illness. If the infection spreads to the nervous system, symptoms such as headache, stiff neck, confusion, loss of balance, and seizures can occur.

### **How do I know if I have Listeriosis?**

You cannot tell without seeing your doctor. Your doctor may order tests to rule out other diseases and may collect a stool (bowel movement) or blood sample.

### **How is Listeriosis treated?**

A doctor can prescribe medicines (antibiotics) to treat the infection. If infection occurs when a woman who is pregnant, medicines given to the woman right away can prevent the infection from spreading to her baby. Babies receive the same medicines as adults.

### **Are there complications from Listeriosis?**

Women who are infected during pregnancy can pass the infection to the fetus (unborn baby) or newborn. This can result in miscarriage, premature delivery, stillbirth (baby born dead), retardation, and other problems. Sometimes listeriosis may develop into blood infection (sepsis) or meningitis (infection of the

brain and spinal cord). Even with prompt treatment, some people, such as those with weakened immune systems or the elderly, may die.

### **How can Listeriosis be prevented?**

In general, people can reduce the risk for getting listeriosis by following these guidelines:

- Thoroughly cook raw food from animal sources, such as beef, pork, or poultry.
- Wash or peel raw vegetables before cooking.
- Keep uncooked meats separate from vegetables, cooked foods, and ready-to-eat foods.
- Avoid raw (unpasteurized) milk and foods made from raw milk.
- Wash hands, knives, cutting boards and work surfaces after handling uncooked foods.

People at high risk of complications from listeriosis, such as pregnant women and persons with weakened immune systems, should also follow these guidelines:

- Avoid soft cheese such as feta, Brie, Camembert, blue-veined, and Mexican-style cheese.
- Cook until steaming hot leftover foods or ready-to-eat foods, such as hot dogs, cold cuts, pate, deli meats and dry sausage.
- Refrigerate or freeze perishable foods within two hours of purchase or preparation. Use fresh meats and seafood within three days of purchase.
- Keep hot foods hot (above 140° F) and cold foods cold (below 40° F). Use a good refrigerator thermometer and check the temperature periodically.
- Divide leftover foods into shallow, covered containers before refrigerating and reheat until steaming hot.
- Be alert to media reports of recalled foods, and check expiration dates for uncooked or ready-to-eat items. Follow label instructions to "keep refrigerated" and "use by" a certain date.

## **About... *Lyme Disease***

### **What is Lyme disease?**

Lyme disease is a bacterial infection caused by the bite of a deer tick ( *Ixodes scapularis*) or a western black legged tick (*Ixodes pacificus*) that is infected with Lyme disease. Young ticks can be as small as a pinhead and the adult ticks are only slightly larger.

### **What are the symptoms of Lyme disease?**

About 80% of the people treated for Lyme disease have a skin rash that appears within 3-32 days after the tick bite. The rash begins as a small red area at the site of the bite that gradually enlarges; leaving a clear center with an outer ring that is inflamed (swollen). Flu-like symptoms such as fever, chills, headache, fatigue (drowsiness), muscle and joint pain, swollen lymph nodes and stiff neck may accompany the rash. If left untreated, Lyme disease may lead to joint, heart and nervous system problems.

### **What is the treatment of Lyme disease?**

Lyme disease is treated with antibiotics. Symptoms of Lyme disease may continue or recur, making additional antibiotic treatment necessary.

### **How can Lyme disease be prevented?**

Preventing the attachment and feeding of ticks through personal protection measures as follows can prevent Lyme disease. Wear light-colored long pants with cuffs tucked into sock and long sleeves when walking in grassy or wooded areas. It is easier to spot ticks on light-colored clothing. Put insect repellent containing DEET on clothing, socks, and shoes and exposed skin. Permethrin (Permanone) will keep ticks off clothes and shoes but should not be applied directly to skin. Check every 2 hours for ticks on clothes or exposed skin. After returning from the grassy or wooded area, brush off clothing and body. Inspect clothes and body for ticks, particularly in the areas of the groin, back of neck and knees, and armpits. Take a hot shower and wash clothing at a high temperature.

### **How do you remove a tick?**

To remove a tick, use tweezers to firmly grip its body close to the skin and pull it straight out. If tweezers are not available, one can remove the tick by grasping the tick close to the skin with a paper towel with one's fingers. Fluids from the tick can transmit infection. Do not squash or squeeze the tick during removal. Immediately wash with soap and hot water all tick bitten areas after the tick is removed. If a rash or fever appears within the next several days or weeks, see a health care provider and inform them of the tick attachment.

### **Can animals get Lyme disease?**

Yes, watch for signs of lameness in the pet. If Lyme disease is suspected, call the veterinarian. Check all pets for ticks if they have been in grassy or wooded areas, especially around the eyes and ears. Use the same precautions and methods for removing ticks from animals that are used when removing them from a person.

## **About... *Malaria* (mah-LARE-ee-ah)**

### **What is Malaria?**

Malaria is a serious, sometimes fatal, blood disease caused by a parasite from the bite of an infected female *Anopheles* mosquito. The parasites attack the red blood cells and cause a sudden increase in temperature. The disease is the leading cause of debilitating illness with over 200 million infected each year.

### **Where does Malaria occur?**

Malaria occurs in over 100 countries. Large areas of Central and South America, Hispaniola ( Haiti and Dominican Republic), Africa, Indian subcontinent, Southeast Asia, the Middle East and Oceania.

### **Who is at risk?**

Travelers and persons living in areas where malaria is transmitted.

### **How is Malaria transmitted?**

Malaria is transmitted to humans by the bite of an infected *Anopheles* mosquito.

### **What are the signs and symptoms of Malaria?**

Fever and flu-like illness, cycles of shaking, chills, and sweating that recur every 1, 2, to 3 days, headache, muscle aches, and lethargic. May cause anemia and jaundice (yellow coloring of the skin) because of the loss of red blood cells. The most harmful type of Malaria is *Plasmodium falciparum*, if not treated, can lead to coma or death.

### **Prevention**

No vaccine is currently available

Visit your health care provider 4-6 weeks before travel to a country where malaria is present to get a prescription for anti-malarial prophylaxis.

Adults use 20-35% Deet repellent on exposed skin

Children should follow the labeled instructions for appropriate concentrations

where long pants and long sleeved shirts

people should be aware of drug resistant strains of malaria around the world

### **Treatment**

Malaria can be cured with prescription drugs. However, drug resistant strains are ever changing and should check with family doctor or local or state health departments.



**How soon after exposure do symptoms appear?**

The time between a mosquito bite and the start of illness is usually 7 to 21 days, but some types of malaria parasites take much longer to cause symptoms. When infection occurs by blood transfusion, the time to the start of symptoms depends on the number of parasites in the transfusion.

## **About... *Measles***

### **What is measles?**

Measles is a very contagious disease caused by a virus.

### **What are the symptoms of measles?**

Symptoms begin slowly with:

- runny nose
- cough
- drowsiness
- loss of appetite
- increase in temperature
- spots may occur inside the mouth
- eyes become sensitive to light.

About the fourth day:

- temperature rises; and
- rash appears on face and spreads to the rest of the body, and lasts about 4 or 5 days.

### **How is measles spread?**

- an infected person spreads measles through the air when he/she coughs or sneezes;
- touching nose or throat drainage of an infected person can also spread the disease; and
- sometimes, articles recently touched by an infected person's nose or throat drainage can spread measles.

### **How is measles treated?**

Treatment is aimed at comfort. No antibiotics are available.

### **How can measles be prevented?**

If you have not had the measles, and/or have no record of having the measles, mumps, rubella (MMR) shot, talk to your healthcare provider to decide if you should receive the shot.

## About... *Meningococcal Disease*

### What is meningococcal disease?

Meningococcal disease is caused by bacteria. Meningococcal disease can cause an infection of the covering of the brain and spinal cord (meningitis) or the blood. The bacteria can live in the membranes of the nose and throat, usually with no symptoms. In a small number of people, the bacteria pass to the blood, causing either a serious infection of the blood or meningitis.

### How is it spread?

The bacteria are spread from person to person by direct contact with an infected person's nose or throat secretions:

### What are the signs of being sick with this germ?

Illness often starts with a sudden fever, headache, stiff neck, a rash, and possibly nausea and vomiting. An infected person may be very sick within a few hours and should seek medical care immediately.

### Who is at highest risk for getting the disease?

Babies, children and young adults are most likely to get the disease, including middle school and high school students. While individual students may become infected, large outbreaks usually do not occur in school or workplace settings. People living in crowded places are at higher risk for infection.

### Can meningococcal disease be prevented?

Yes, the disease can be prevented by good hygiene. Cover nose and mouth when sneezing or coughing, throw used tissues away and wash hands often. Is there a vaccine available?

### What vaccines may prevent a child from getting this germ?

Two vaccines are available to prevent this infection:

- Meningococcal Conjugate Vaccine (MCV4), which is *Menactra*  
This vaccine is licensed in the U.S. for persons 11-55 years of age. It is likely that this vaccine or a similar vaccine will be licensed for younger age groups in the future. This vaccine is recommended for:
  - Young adolescents at the pre-adolescent visit (11-12 years old)
  - Adolescents at high school entry (about 15 years old)
  - Groups that have a higher risk of meningococcal disease, such as students that will be college freshmen living in dormitories.
- Meningococcal Polysaccharide Vaccine (MPSV4), which is *Menomune*  
This vaccine is recommended for people who have an increased risk of disease due to certain medical conditions who are age 2-10 years and over 55 years. People at high risk need revaccination every 3-5 years.

For questions about meningococcal disease or vaccines to prevent meningococcal disease, please contact your physician or your local health department.

Additional information may be found at the following websites:

<http://www.in.gov/isdh/healthinfo/meningococcal%20disease.htm>

[http://www.cdc.gov/nip/vaccine/mening/mening\\_fs.htm](http://www.cdc.gov/nip/vaccine/mening/mening_fs.htm)

## **About... *Mononucleosis***

### **What is Mononucleosis?**

Mononucleosis is a disease caused by the Epstein Barr virus. Mononucleosis is actually a condition where there is a presence of a high number of leukocytes in the blood.

### **What are the symptoms?**

The symptoms of mononucleosis are fever, sore throat, swollen lymph glands, and sometimes a swollen spleen or liver. Symptoms of mononucleosis are usually resolved in 2 months.

### **How is Mononucleosis spread?**

Mononucleosis is spread by direct contact with the saliva of an infected person. It normally is not spread through the air. People with infectious mononucleosis may be able to spread infection to others for weeks.

### **How is it treated?**

There is no specific treatment for infectious mononucleosis, other than treating the symptoms. Currently, there is not a vaccine available.

### **How can Mononucleosis be prevented?**

There are very few prevention measures that can be used to prevent the spread of mononucleosis. Good hygiene and frequent handwashing should be of major importance. Avoid drinking beverages from a common container with infected individuals.

## **About... *Mumps (Infectious parotitis)***

### **What is mumps?**

Mumps is an illness caused by a virus. It affects glands that produce saliva which are located near the jaw. It can occur on one or both sides of the jaw area of the face and neck.

### **What are the symptoms of mumps?**

Symptoms of mumps include:

- fever;
- tiredness;
- headache;
- pain below the ears;
- there may be swelling and tenderness along the jaw, in front of, and below the ear(s); and
- there may be swelling in the testicles of males.

Even if an infected person does not have swelling, they can still pass the virus on.

### **How is mumps spread?**

The mumps virus is spread by contact with an infected person's saliva or droplets that might be released through the nose or mouth when the person coughs or sneezes.

### **How is mumps treated?**

Treatment for mumps might include bedrest, a soft diet (because it is painful to chew), and medicine for headaches and discomfort.

### **How can mumps be prevented?**

If you have not had mumps, or have no record of having the measles, mumps, rubella (MMR) shot, talk to your healthcare provider to see if you should get this shot.

## **About... *Needle-Sticks***

*For individuals who have been injured with a needle that may have been used.*

### **What should I do?**

Wash the injured area with soap and water and contact your doctor immediately. Most likely, your doctor will take blood tests, provide counseling regarding Human Immunodeficiency Virus (HIV), Hepatitis B, Hepatitis C and other diseases transmitted by exposure to blood, and answer your questions. He/she will tell you what symptoms to watch for during the next 6 months. Most people who are going to become infected do so within 6 months.

### **Can the syringe be tested for HIV, Hepatitis B and Hepatitis C?**

No. Laboratories are not able to test syringes and/or needles for HIV, Hepatitis B or the Hepatitis C Virus because there is not enough blood to test. Also, antibody tests for these viruses cannot be done after blood is dry.

### **What should I do with the syringe?**

Contact your local health department about disposal of the needle.

### **What is needed for disease transmission to occur?**

In order for there to be disease transmission, these things must occur:

- 1) the person who used the needle must have the disease;
- 2) the person stuck by the needle must be susceptible to the disease;
- 3) the person stuck by the needle has to get enough virus into the body to cause infection.

While HIV, Hepatitis B, and Hepatitis C can be transmitted by needle-stick, this does not occur often.

### **Is there anything else I should do?**

Public health recommendations during the 6 months following exposure to blood, include:

- . NO sharing of personal items, such as needles, toothbrushes and razors;
- . NO unprotected sexual intercourse;
- . NO breast-feeding; and,
- . NO blood, semen, or organ donations .

### **Is the Hepatitis B vaccine recommended after a needle-stick injury?**

Your doctor will discuss the Hepatitis B vaccine with you. The Centers for Disease Control and Prevention ( CDC) recommends that unvaccinated persons receive the first dose of the vaccine as soon as possible, the second dose in one month, and the third dose in six months.

**Am I at risk for HIV?**

Although the risk of getting HIV from a used syringe/needle is not zero, HIV is a fragile virus and does not survive well outside the human body. Studies have shown that the amount of virus found in dried blood is reduced by 90-99% within several hours, thus making it very difficult to infect a person. Discuss this issue with your doctor.

**Am I at risk for Hepatitis B?**

The Hepatitis B virus is much stronger than HIV. As dried blood, Hepatitis B stays alive for one week, and maybe longer. Thus, you are at greater risk of contracting Hepatitis B from a used syringe/needle than HIV. Discuss this issue with your doctor.

**Am I at risk for Hepatitis C?**

Approximately 2 out of 100 people develop Hepatitis C after a needlestick exposure to Hepatitis C infected blood. Discuss this issue with your doctor.



## **About... Osteoporosis**

### **What is osteoporosis?**

Osteoporosis is a disease that causes bones to weaken. Bones become increasingly fragile and may fracture easily. The disease often progresses painlessly until a bone breaks, usually in the hip, spine, or wrist. Women are four times more likely than men to develop the disease, mainly due to the loss of estrogen at menopause. Half of all women over age 65 are affected with osteoporosis

### **What causes osteoporosis?**

The cause of osteoporosis is not known, but there are 'risk factors' which increase the chance of developing the disease. Family history, diet, and lifestyle all play roles in determining risk for osteoporosis. Some people develop the disease even though they may seem to be at low risk.

### **Am I at risk for osteoporosis?**

Factors that may increase your chances of developing osteoporosis are:

- Small, thin body frame
- Family history of osteoporosis
- Broken bone after age 40
- Female
- Postmenopausal
- Diet low in dairy products or other sources of calcium
- Inactive lifestyle with little or no exercise
- Caucasian or Asian race
- Some medications, such as thyroid medication or cortisone-like drugs for asthma, arthritis, or other disease
- Cigarette smoking
- Excessive use of alcohol

### **How would I know if I might have osteoporosis?**

Often a fracture is the first visible sign of osteoporosis. A family medical history and bone mass measurements are part of a complete assessment. Ask your doctor to help you better understand your own risk and to become aware of prevention and treatment options.

### **How is osteoporosis treated?**

Lifestyle changes and medical treatment are part of a comprehensive program to prevent future fractures. A diet rich in calcium, daily exercise, and drug therapy are treatment options. Good posture and prevention of falls are important in reducing the chance of being injured.

**How can I protect myself from having osteoporosis?**

- In childhood, adolescence, and as a young adult, build strong bones so when you begin to lose bone after age 35, you have enough reserves to cover your loss.
- Eat foods rich in calcium, such as milk, yogurt, cheese, ice cream
- Do weight-bearing exercise, such as walking, hiking, stair climbing
- If postmenopausal, consider estrogen replacement
- Consider using calcium supplements
- Don't smoke
- Limit alcohol beverages

**Where can I get more information?**

You may call your doctor or your local medical society for a referral.

National Osteoporosis Foundation Dairy and Nutrition Council

202/223-2226 317/842-3060 (Indianapolis) 219/299-8040 (South Bend)

## About... *Pertussis (Whooping cough)*

### What is pertussis?

Pertussis, also called whooping cough, is a contagious illness caused by bacteria. It can occur at any age, but is usually more severe in infants. Adults and teenagers, who often have milder and undiagnosed symptoms, can give the disease to infants and other persons who are not immune.

### What are the symptoms of pertussis?

Pertussis can be divided into 3 stages:

- 1) During the first stage, symptoms are similar to having a cold. There may be a slight fever, sneezing, runny nose, dry cough, loss of appetite, and irritability.
- 2) During the second stage (about 1 to 2 weeks later), the cough becomes more intense. There may be short, intense coughing spells followed by a long gasp for air (this is when the "whoop" is heard). The face may turn blue, nose may bleed, and vomiting may occur following a coughing spell.
- 3) During the third stage, the cough is less intense and less frequent, and appetite begins to increase. Eventually, maybe several months later, the cough stops.

### How is pertussis spread?

Usually, it is spread by contact with an infected person's nose or throat secretions. This can happen by touching an infected person's nose or throat drainage, or it can be spread when an infected person coughs or sneezes.

### How is pertussis treated?

Antibiotics are given to make the illness less contagious, but do not reduce the symptoms unless given very early in illness.

### How can pertussis be prevented?

Be sure that children are up to date on their shots, especially the diphtheria, tetanus, pertussis (DTaP) series. *A booster dose of pertussis containing vaccine (Tdap) is available for persons 10-64 years of age. Tdap is now the recommended vaccine for use as a booster dose, replacing Td (tetanus-diphtheria) which had been used for many years.*

## About... *Plague*

### **What is Plague?**

Plague is a bacterial infection of rats, ground squirrels, prairie dogs and other rodents on every continent except Australia and Antarctica. There are two kinds of plague infection, bubonic (boo-bahn-ick) and pneumonic (new-mahn-ick).

### **How is Plague Spread?**

Bubonic plague is spread through bites from plague-infected fleas or insects. Typically, human populations become infected after a large number of rats have died from plague, which forces the movement of the flea population from its natural rat reservoir to humans. Bubonic plague is NOT transmitted from person to person.

Pneumonic plague is classified as primary or secondary. Primary pneumonic plague is spread through having close contact with a person or animal infected with pneumonic plague. Typically, it is spread from person to person or animal to person, primarily from the mouth and throat droplets or aerosols from the infected person. Pneumonic plague IS transmitted from person to person. Secondary pneumonic plague occurs when the bacteria spreads to the lungs through the blood in a person with bubonic plague.

### **What are the symptoms of Plague?**

Patients develop symptoms of bubonic plague 1-8 days after being bitten by an infected flea. Symptoms present as a sudden onset of fever, chills, weakness, and a swollen or tender lymph node called a bubo, which usually develops within one day. Buboes typically are found in the groin, armpits, or neck regions and can be very painful. Occasionally some people infected with bubonic plague will develop blood infections.

Patients typically develop symptoms of pneumonic plague 1-4 days after infection. Symptoms of pneumonic plague include severe pneumonia, chest pain, difficulty breathing, cough and coughing up blood.

### **How do I know if I have Plague?**

Physician's complete a thorough physical examination and laboratory testing to confirm whether or not you have bubonic or pneumonic plague.

### **How is Plague treated?**

Bubonic and pneumonic plague can be treated with antibiotics. Pneumonic plague can be more serious and may require advanced supportive medical care and isolation as it IS spread from person to person.

### **How is plague prevented?**

Currently there is no vaccine available to the general public.

You can minimize your risk for infection of bubonic plague through good rodent control efforts and limiting your exposure to rodents and wild animals.

While pneumonic plague is extremely rare, you can limit your risk of exposure by limiting your contact with infected persons and washing your hands frequently.

## **About... *Pneumococcal Infections***

### **What are pneumococcal infections?**

Pneumococcal infections are bacterial diseases which can cause pneumonia, meningitis, and sinus and ear infections. They are most common during the winter months. Anyone can become infected, but elderly people and people with other health problems are more likely to become seriously ill. Pneumonia is an important cause of death in the elderly.

### **How are pneumococcal infections spread?**

The bacteria are spread from person to person by direct contact with an infected person's nose or throat secretions. In most cases pneumococcal disease is not easily spread from one person to another. However, on rare occasions, outbreaks have occurred in settings where people live or work very close together, such as day care centers and jails.

### **What are the symptoms?**

Many people have bacteria that cause pneumococcal infections in their bodies without having symptoms. Persons with pneumococcal disease typically develop these symptoms within 1-3 days of contact with the bacteria:

- chills
- fever
- pain around chest area
- cough
- "rusty" looking phlegm

Persons with meningitis may have fever, headache, sensitivity to light, and loss of alertness.

### **Who is at highest risk for getting pneumococcal infections?**

Babies, the elderly, or anyone with serious health problems such as, Hodgkin's disease, HIV, and sickle-cell anemia, are most likely to get the disease. People living in crowded places are also at higher risk for infections.

### **What type of treatment is needed?**

Penicillin or other antibiotics are used to treat infected people.

### **Do I need to worry about drug resistance?**

Yes. Pneumococcal bacteria are becoming increasingly resistant to antibiotics. If you have a serious infection with pneumococcus, your doctor will run special tests to make sure you receive the right medication.

**How can I help prevent drug resistance?**

- Take antibiotics only when prescribed by your doctor.
- Take all doses for the exact number of days they are prescribed.
- Do not take anyone's leftover doses.
- Do not ask your doctor for antibiotics to treat viruses, such as colds or flu

**Can pneumococcal infections be prevented?**

Yes. A new vaccine is now available for children 2 months to 4 years of age. There is also a vaccine available for other persons who have chronic illnesses, asplenia, Hodgkin's disease, HIV or other immunosuppressed conditions, lymphoma, or kidney disease. All persons over age 65 are especially encouraged to have this vaccine. Talk to your doctor or health department to get more complete information about these vaccines.

**Should household, child care, or school contacts take any special precautions?**

People who have been around someone with pneumococcal infection do not need to take medication themselves. Follow good hygiene habits, such as covering mouth and nose when you sneeze or cough. Throw tissues away; wash hands often, and don't share personal items.

**Where can I get more information?**

For more information contact your doctor, your local health department, or the Indiana State Department of Health.

## About... Q Fever

### What is Q Fever?

Q fever is an infection caused by the bacteria *Coxiella burnetii*. The disease can range from an infection so mild as to not be recognized, to a severe chronic infection, to a fatal illness. The disease can cause a range of clinical presentations from pneumonia, heart problems, liver abnormalities, and bone infections to neurological manifestations such as encephalitis, aseptic meningitis, or dementia. The disease occurs worldwide.

### How is Q fever spread?

Q fever is a disease of animals and the primary reservoirs are sheep, goats, and cattle. The disease-causing bacteria is excreted in milk, urine, and feces of infected animals. It also is shed in birth products of infected animals. Transmission to humans usually occurs from inhaling the organism from contaminated environments including barn yard dust. Consumption of raw contaminated milk has also been shown to be a route of infection. The bacteria is very resistant to heat, drying, and common disinfectants. Since very few organisms are required to cause disease in humans, this disease is a candidate for use as a bioterrorism agent. This disease is a risk to farmers, livestock handlers, workers in meat packing plants, and others with animal related occupations.

### What are the symptoms of Q Fever?

The incubation period (time from exposure to onset of illness) is approximately 2 to 3 weeks. Approximately one half of the individuals infected show clinical disease. Symptoms of Q fever are:

- High fever (1040 – 1050 F)
- Chills, sweats
- Intense headache
- Fatigue with tenderness or pain in the muscles and joints
- Non-productive cough, sore throat
- Nausea, vomiting, and diarrhea

Often the infection develops into pneumonia and sometimes hepatitis. Approximately 1-2 percent of individuals with acute disease will die without treatment. Some will develop chronic Q fever. Individuals with pre-existing heart valve disease or those with other immunosuppressive diseases are at higher risk. The mortality rate in the chronically infected can be higher.

### How do I know if I have Q Fever?

You cannot tell without seeing your doctor. Your physician will complete a thorough physical examination and laboratory testing to confirm whether or not you have Q fever.

### How is Q Fever treated?

Q fever is treated with antibiotics. Doxycycline is preferred for the acute form of the disease. Doxycycline and quinolones in combination may be given for multiple years to treat the chronic form. Individuals whose heart valves become infected with Q fever may need surgery to replace the valves. There is not currently a vaccine against this disease in the United States.

**How is Q fever prevented?**

Drink only pasteurized milk. Individuals who are at highest exposure (meat processing, veterinarians, sheep and dairy workers, livestock farmers, and researches using livestock especially sheep) should be aware of the disease. Since sheep and goats tend to shed the organism more with birth products; all placenta, birth products, fetal membranes, and aborted fetuses should be disposed of in a manner that prevent environmental contamination.



## **About... *Rabies***

### **What do I do if an animal bites me?**

- Wash the bite with lots of soap and running water.
- Call a doctor to see if antibiotics or a tetanus shot are needed.
- Report bite to your local health department.

### **What are my chances of getting rabies from an animal bite?**

Getting rabies is unlikely. Most animals with rabies (skunks, bats) are wild. Any wild animal could have rabies, but rodents, rabbits, and squirrels almost never do. The last known cat in Indiana with rabies was in 1984; the last known dog was in 1989.

### **How is rabies spread?**

Rabies is spread when saliva containing the rabies virus gets into broken skin.

### **Can I tell if an animal has rabies?**

No, but stay away from wildlife and animals acting strangely. They could have rabies.

### **What should be done with the animal that bit me or someone I care about?**

A dog or cat can be held for 10 days. If it doesn't get sick, it didn't have rabies.

If a wild animal or a stray dog or cat bites someone, it can be put to sleep and the head sent to the Indiana State Department of Health Laboratory to be tested for rabies.

### **What if the biting animal isn't available for observation or testing?**

The patient, the doctor, and the local health department will decide together if they think the animal might have rabies and if the patient should be treated with the rabies vaccine.

### **What are the rabies shots like?**

The vaccine is given in a series of shots over a 5 week period. Unlike in the past when rabies shots were to be feared, today they cause only minor discomfort.

### **Where can I get more information?**

You may call your doctor or local health department for information on animal bites and rabies.

## **About... *Respiratory Syncytial Virus (RSV)***

### **What is RSV?**

RSV is a virus that is spread from respiratory secretions through close contact with infected persons or contact with contaminated surfaces or objects.

### **How is RSV spread?**

RSV can occur when infectious materials contact eyes, mouth, and nose and possibly through the inhalation of droplets generated by a cough or sneeze.

### **What are the symptoms of RSV?**

The symptoms of RSV are fever, runny nose, cough, and sometimes wheezing.

### **How is RSV treated?**

For children with mild disease, no specific treatment is necessary other than the treatment of symptoms (pain reliever, fever reducer). Children with severe disease may require oxygen therapy. Ribavirin aerosol may be used in the treatment of some patients with severe disease.

### **How can RSV be prevented?**

RSV can be prevented by frequent handwashing and not sharing items such as cups, glasses and utensils with persons who have the RSV illness. Excluding children with colds or other respiratory illnesses without fever who are well enough to attend child care or a school setting will probably not decrease the transmission of RSV. Almost 100% of children in childcare get RSV in the first year of life. Proper disposal of tissues to clean nasal or respiratory secretions can help the spread of RSV.

### **When are outbreaks most common?**

RSV outbreaks generally occur during the winter months (Nov. - April).

## **About... *Rocky Mountain Spotted Fever***

### **What is Rocky Mountain spotted fever (RMSF) ?**

Rocky Mountain spotted fever is the name given to a disease caused by the bacteria, *Rickettsia rickettsii*, that can infect both animals and people. Named because it was first recognized as occurring in the Rocky Mountain states, however, most cases occur in the East especially the Southeast. Cases occur each summer in Indiana

### **How is RMSF Spread?**

RMSF is spread in Indiana by the bite of the dog tick, *Dermacentor variabilis*. Ticks acquire their infection from small wild living rodents. The tick injects the bacteria into either the animal or human host as it is engorging on blood. Pictures of the dog tick can be viewed at:  
[www.ent.iastate.edu/imagegal/tick/dvar/](http://www.ent.iastate.edu/imagegal/tick/dvar/)

### **What are the symptoms of RMSF?**

Patients with RMSF first show symptoms 5-10 days after a tick bite. Early symptoms are not specific for RMSF but may include:

- Fever,
- Severe headache,
- Nausea vomiting, and lack of appetite
- Muscle pain, joint pain
- Rash

### **How do I know if I have RMSF?**

You cannot tell without seeing your doctor. Your physician will complete a thorough history, review of your signs and symptoms, physical examination, and laboratory testing to confirm whether or not you have RMSF.

### **How is RMSF treated?**

RMSF can be treated with appropriate antibiotics, usually a tetracycline or doxycycline, but others may be used depending on the patient's age or other health status.

### **How can RMSF be prevented?**

Preventing tick bites is the only way to prevent this disease. Preventing tick bites can be accomplished by:

- Staying out of area where ticks are likely to occur. Keeping high grass, weeds and brush from yards to remove places that serve as harborage for ticks.
- If you do enter area where ticks are likely to be present:

- Wear long pants and long sleeved light-colored clothing to easily see ticks on clothing and prevent access to skin.
- Tuck pant legs into sock to prevent ticks from reaching skin of legs or crawling up inside of pant legs.
- Use repellents containing DEET may be applied to the skin or clothing will discourage ticks from attaching to the body for several hours before needing to be replaced. Products containing permethrin can be sprayed on your shoes and clothing and will be effective for several days. Carefully follow label directions when using any repellent.

After leaving a tick infested area do a full body tick check and remove any ticks found with either tweezers, paper tissue, or while wearing gloves. Ticks should be removed by grasping them close to the skin and pulling upward with a steady, even pressure. For additional instructions on tick removals go to: [www.cdc.gov/ncidod/dvrd/rmsf/Prevention.htm](http://www.cdc.gov/ncidod/dvrd/rmsf/Prevention.htm).

## **About... *Rubella***

### **What is rubella?**

Rubella is a contagious illness caused by a virus. The symptoms are similar to measles and scarlet fever, but do not last as long.

Rubella can cause serious problems to an unborn baby. If you are pregnant, and suspect that you have or that you have been exposed to rubella, contact your healthcare professional, immediately.

### **What are the symptoms of rubella?**

Illness lasts about 3 to 5 days and symptoms include:

- slight fever;
- drowsiness;
- sore throat;
- a rash appears on the first or second day, beginning on the face, and spreading quickly to the rest of the body; and
- some swelling in the neck lymph nodes may be present.

### **How is rubella spread?**

Rubella is spread through indirect or direct contact with an infected person's nose or throat drainage. It can be spread when an infected person coughs or sneezes.

### **How is rubella treated?**

Because rubella is caused by a virus, there are no antibiotics given. Treatment is aimed at comfort.

### **How can rubella be prevented?**

If you have not had rubella, or have no record of receiving the measles, mumps, rubella (MMR) shot, talk to your healthcare provider about receiving this shot.

## About... *Salmonella*

### What is salmonella?

Salmonella is a bacterium that is found in the intestines of many animals. There are many types of salmonella, most of which can infect humans. Illness from salmonella can vary from mild diarrhea to serious disease, such as typhoid fever.

### What are the symptoms of salmonella infection?

For most people, salmonella causes diarrhea, stomach cramps, and fever. Blood or mucous may appear in the stool. The diarrhea and other symptoms usually begin 18-36 hours after exposure and may last 48-72 hours, but the person may carry salmonella in his body for weeks or months and be able to infect others.

Rarely, salmonella can get into the blood and infect organs such as the heart, lungs, and bones. Death from salmonella is rare. Children under five, the elderly, and people with compromised immune systems, such as those with AIDS, are at the greatest risk for severe complications.

### How is salmonella spread?

Because salmonella is most commonly found in animals, people often become infected by eating foods contaminated with the bacteria (usually foods of animal origin such as meats, poultry, eggs). Salmonella is passed in the stool and people can also become infected by coming into contact and accidentally consuming feces from an infected animal or other human. Young children are often infected after handling pets such as chicks, ducklings, and especially reptiles, such as iguanas and turtles.

### How is salmonella treated?

In most cases, the only treatment is to drink lots of fluids to prevent dehydration. A doctor may give antibiotics to those at risk for severe complications.

### How can salmonella be prevented?

- Wash hands well after using the toilet, cleaning the toilet, after changing diapers, after handling soiled towels or linens, and after handling pets and pet cages.
- Wash hands well before, during, and after fixing food.
- Thoroughly cook all foods from animal sources, especially chicken, beef, pork, meat dishes, and eggs.
- After preparing raw meat, thoroughly wash and rinse all utensils, bowls, and counters.
- Use a separate cutting board to prepare raw meats.
- use a clean plate for cooked meat. Never return cooked meat to the same plate used for raw meat.
- Marinade or BBQ sauce used on raw meat should not be used on cooked meat.
- Do not eat raw or partially cooked eggs, as in eggnog or homemade ice cream. Use pasteurized egg products from the grocery store for these purposes.
- Drink only pasteurized milk and milk products.
- Keep food at proper refrigeration temperatures.

- Keep pets out of food-preparation areas.
- Do not clean pet or reptile cages in the kitchen sink or in the bath tub.
- Iguanas or other reptiles should not be allowed to roam the house.
- Do not let children handle reptiles without supervision.
- Reptiles should not be kept in child care centers.
- Households with children under 5, pregnant women, and persons with depressed immune systems, such as AIDS, should not have reptiles.

## About... *Scabies*

### What is scabies?

Scabies is a skin disease caused by a mite that can not be seen without a microscope. The mite burrows under the skin to lay its eggs.

### What are the symptoms of scabies?

- Severe itching (especially at night) is the main symptom.
- There may be sores or blisters from scratching the area.
- Burrows (that look like tunnels) where the mite has buried under the skin can be seen.

The most common sites affected include the web between the fingers, the heels of the palms, the wrists, the armpits, buttocks, genitalia, and the elbows. The nipples may be affected in older women.

### How is scabies spread?

- Scabies is spread by direct skin to skin contact with an infected person.
- It can also be passed on through sexual contact.
- It is possible for scabies to be passed on from contact with the undergarments or bed linen of an infected person.
- Scabies *does not* necessarily mean that the infected person has poor hygiene.

### How is scabies treated?

There are medicines that can be applied to the body to kill the mite and eggs. Other people who have been in contact with the infected person's skin may need treatment, too.

### How can scabies be prevented?

- Wash the infected person's bed linen, clothing and undergarments that were worn 48 hours before effective treatment was begun.
- Mattresses and upholstered furniture should be vacuumed thoroughly.
- Use medicine as directed.



## About... *Shigellosis*

### What is shigellosis?

Shigellosis is a serious gastrointestinal illness that occurs about two days to one week after a person becomes infected with *Shigella* bacteria. The infection is very easily passed from one person to another. It is very serious in babies, older adults, and people who are not well.

### How is shigellosis spread?

*Shigella* is shed in the stool of infected people and is most often spread:

- on hands that have not been washed after using the bathroom;
- from touching others or by touching food or drinks others will eat; and,
- oral-anal sex.

In underdeveloped countries, flies can carry it from out houses to food.

### What are the symptoms of shigellosis?

- sudden stomach pain;
- stomach cramps;
- diarrhea;
- fever;
- vomiting; and
- blood, pus, and mucus in stool

Symptoms begin about one day to one week after a person becomes infected and can last up to one week. Some people may have no symptoms but still spread the infection.

### Can shigellosis be cured?

Antibiotics are used to treat shigellosis, but there are some resistant strains

### How can shigellosis be prevented?

- Washing hands with soap and running water is the most important way to prevent the spread of shigellosis. Always wash hands:
  - after using the bathroom
  - after changing diapers
  - after cleaning the toilet
  - after handling soiled towels or linens
  - before eating
  - before preparing food
- If possible, exclude people with diarrhea from fixing and serving food.

- Limit the use of home prepared foods for large groups.
- Never send infected children to a child care center, especially if the child is still having diarrhea.
- Use child care centers that have excellent hygiene, including:
  - staff washes hands after changing each diaper;
  - staff cleans changing area after each child;
  - children must wash hands often;
  - children must wash hands after using toilet; and
  - clean, sanitary facility.

## **About... *Shingles***

### **What are Shingles?**

Shingles is caused by the same virus that causes chickenpox. Only people who have had chickenpox can develop shingles. After having chickenpox, the virus lays in a dormant state in certain nerve cells of the body and then reactivates, causing shingles (sometimes shingles is called herpes zoster).

### **What are the symptoms of shingles?**

The first symptom of shingles is a burning pain or tingling and extreme sensitivity, usually in one area of the skin. This may be present for 1-3 days before a red rash appears. There may be some fever and headache. The rash soon turns into groups of blisters that look a lot like chickenpox. The blisters generally last for two to three weeks.

### **How is it spread?**

The virus that causes shingles can be passed on to others, but they will develop chickenpox, not shingles. Shingles is much less contagious than chickenpox. Persons with shingles can transmit the virus if the blisters are broken and someone who has never had chickenpox comes in contact with the fluid from the blisters.

### **How is it treated?**

In most cases of shingles, the condition clears up on its own in a few weeks and seldom recurs. Treatment of the symptoms with pain relievers and cool compresses can be helpful. Your physician may wish to treat shingles with an anti-viral drug.

### **Can shingles be prevented?**

Shingles itself cannot be prevented, but by giving varicella (chickenpox) vaccine, you can prevent the virus from causing chickenpox in those who are vaccinated.

## **About... *Smallpox***

### **What is smallpox?**

Smallpox is a serious disease caused by the variola virus that was announced as eradicated, or wiped out, by the World Health Organization in 1980. However, smallpox remains a serious threat due to the possibility that some of the remaining stock, if in the wrong hands, could be grown and adapted for bioterrorism purposes. Smallpox has a fatality rate of 30 percent or more.

### **How is smallpox spread?**

Smallpox spreads directly from person to person, primarily from the mouth and throat droplets or aerosols from the infected person. In addition, contaminated clothes or linens can also spread the virus. Transmission is highest during the onset of rash through the 7th to 10th days of the rash. As the scabs form, the infectivity of smallpox declines. Because of changes in temperature and humidity, there is more occurrence of smallpox in the winter and early spring. There are no known animal or insect reservoirs or carriers to transmit smallpox.

### **What are the symptoms of smallpox?**

- After the incubation period, 10-12 days on average, high fever, malaise, headache, and backache develop
- Abdominal pain and delirium or disorientation sometimes occur
- Small, colored, bumpy rash begins on the mouth, pharynx, face, and forearms, spreading to the trunk and legs
- Within 1-2 days, the rash becomes blisters, and then round and deeply set pimples with pus form in the skin
- Within 8-9 days, the pimples with pus become crusted
- Scabs separate, leaving pigment-free skin, and eventually pitted scars form

### **Can smallpox be treated?**

Treatment of smallpox is limited to supportive therapy and antibiotics for secondary bacterial infections. There are no antivirals, treatments to kill or suppress the virus, that have proven to be effective.

### **Is there a smallpox vaccine?**

There is a vaccination for smallpox. However, routine vaccination stopped in the United States in 1972, and production of the vaccine had ceased by 1980, due to the eradication of smallpox. Those who received the vaccinations before 1972 do not have lifelong immunity because it declines within a 5-10 year period after the vaccination. A limited supply of vaccine still exists in the United States under Center for Disease Control and Prevention authority. Vaccines administered within 3 days of the first exposure have shown to offer some protection against getting infection and significant protection from mortality.

**What precautions should be taken with smallpox?**

Patients should be isolated or confined in rooms with high air filtration. Standard precautions (gloves, mask, and gown) should be worn. All laundry and waste should be sterilized with steam under pressure before being laundered or destroyed. Standard hospital disinfectants should be used for surface decontamination.

## **About... *Staphylococcal Food Poisoning***

### **What is Staphylococcal Food Poisoning?**

Staphylococcal (staff-uh-low-COCK-ull) food poisoning is caused by a toxin (poison) made by Staphylococcus bacteria, usually Staphylococcus aureus. These bacteria are found on the skin, in the nose, mouth, and throat of many healthy people. These bacteria sometimes cause skin infections, such as acne or boils.

### **How is Staphylococcal Food Poisoning spread?**

You can get staphylococcal food poisoning by eating food contaminated with staphylococcal bacteria. Food is usually contaminated when someone handles food with bare hands, especially after touching the face or mouth. If the food is not cooked thoroughly or properly kept hot or cold, the bacteria can grow and produce toxin in the food. Foods commonly involved include ham, poultry, filled pastries, custard, egg salad and potato salad.

Staphylococcal food poisoning is **NOT** spread from person-to-person.

### **What are the symptoms of Staphylococcal Food Poisoning?**

- diarrhea
- vomiting
- nausea
- cramps
- weakness

Symptoms start suddenly within 1-6 hours after eating contaminated food. The illness goes away on its own, usually within a day.

### **How do I know if I have Staphylococcal Food Poisoning?**

See your doctor. The illness is usually diagnosed by symptoms and quick onset, but your doctor may order tests to rule out other conditions.

### **How is Staphylococcal Food Poisoning treated?**

There is no medicine to cure staphylococcal food poisoning. There is no vaccine (shot) to prevent it. Your doctor may recommend medicine to lessen the symptoms or fluids to prevent dehydration (severe fluid loss). Drinking lots of fluids helps your body replace fluids lost by diarrhea and vomiting.

### **How can Staphylococcal Food Poisoning be prevented?**

- Keep hot foods hot (at or above 140° F) and cold foods cold (at or below 41° F).
- Do not store foods longer than four hours at room temperature.
- Cool cooked foods as soon as possible using shallow, uncovered containers or covered containers vented to allow heat to escape.
- Cool and reheat foods one time.

- Exclude food handlers with exposed infections, such as a boil or cut on the hands, from food preparation and handling.
- Touch food with bare hands as little as possible. Do not handle food with bare hands after touching your face or if you have open sores on your hands.
- Wash hands with soap and water before preparing food. If you touch your face while preparing food, wash your hands handling food again.

## **About... *Information You Should Know Before Getting A Tattoo***

### **How does Indiana define tattooing?**

According to Indiana Code 25-1-5, tattoo means, "any indelible design, letter, scroll, figure, symbol, or other mark placed with the aid of needles or other instruments; or any design, letter, scroll, figure, or symbol done by scarring upon the skin.

### **What laws govern tattooing?**

In 1997, Indiana Code 16-19-3-4.1 directed the Indiana State Department of Health to adopt reasonable rules to regulate the sanitary operations of tattoo parlors. Effective June 12, 1998, 410 IAC 1-5, established by the State Department of Health is to be followed by tattoo parlors.

This law also states that anyone under 18 years of age must be accompanied by, and have written permission from, a parent or legal guardian. Tattoo artists may choose not to tattoo individuals under the age of 18, even if they have parental permission.

Check with your local health department for local laws that might pertain to tattoo parlors.

### **What training must tattoo artists have?**

Tattoo artists must receive yearly training concerning how diseases are passed on by contact with blood.

Tattoo artists are not required to receive training or certification on the tattooing process.

### **Are tattoo artists required to be registered or licensed?**

Registration or licensing is not required by the State, but check with local health departments for any additional requirements.

### **What should I look for when I go into a tattoo parlor?**

- Patron (client) rights must be displayed.
- Gloves must be worn by the artist when tattooing.
- Needles and tubes must be sterile. A new container of ink is used for each patron and needles must be sterile and used only on you.
- There should be hand-washing facilities with running water readily available for the artist to use.
- Appropriate disinfectants should be used to clean surfaces where there has been (or might have been) blood.

### **What kind of infections could I risk from getting a tattoo?**

It is possible to get diseases from exposure to blood.

The risk of infection is small when the tattoo artist is following the law.



There has not been a documented case of HIV (the virus that causes AIDS) from getting a tattoo. But there have been documented cases of getting Hepatitis B and also there have been documented cases of Hepatitis C when unsterile equipment was used for tattooing.

Other infections that are possible are: blood poisoning, Staphylococcal infections, and skin diseases.

### **What are some signs of infection?**

Talk to your tattoo artist about what to expect after getting a tattoo.

Although some swelling around the tattoo is normal, you should talk to your tattoo artist and to your health care provider if you have any of the following signs of infection after getting a tattoo:

- thick yellow or green discharge coming from the tattoo;
- continued oozing or bleeding;
- red streaks or hot sensation moving away from the tattoo;
- pain that continues or gets worse; and
- any unusual pain or swelling.

### **Could I become allergic to a tattoo?**

Yes, but this is very rare. Sensitivity reactions occur most frequently to dyes containing mercury, chromium, cadmium and cobalt. The newer pigments do not contain these metals.

Also, exposure to sunlight may irritate a tattoo and make it look like an allergic reaction. Always wear sunscreen after your tattoo has healed.

### **Any other health issues to be aware of?**

- You should never cover a mole with a tattoo, because it could turn cancerous without you knowing it.
- If you tend to form large, bumpy scars (keloids), these may occur in the tattoo.
- Also, your doctor should be aware of your tattoos (some show up on x-rays) and should feel comfortable assessing them for any reactions.
- If you are pregnant or have certain medical conditions, including diabetes, talk to your health care provider and tattoo artist before getting a tattoo.
- Alcohol and/or certain drugs can cause more bleeding than normal---if you have been drinking or using drugs, you should not get a tattoo.
- Alcohol and/or certain drugs may cause a person to have poor judgement. If you have been drinking or using other drugs, you should consider waiting until you are no longer under the influence of the alcohol or drugs to get your tattoo.
- Or, if you feel that the tattoo artist has been drinking alcohol or using drugs, you should wait or seek another tattoo artist.

**Are tattoos permanent?**

Tattoos are meant to be permanent. Although tattoos can sometimes be removed, the process is painful, long, expensive, and does not always work.

**Does the State Department of Health or the local health departments inspect tattoo parlors?**

The State rules do not require that tattoo parlors be routinely inspected by the State. Investigations are done based on complaint. There are some counties that do routine inspections based on local ordinances. Call your health department for more information about inspections.

If you have concerns about tattooing or tattoo parlors, contact your local health department or the State Department of Health.

For more information, contact:

State Department of Health

Communicable Disease

(317) 233-7665

## About... *Toxoplasmosis*

### What is toxoplasmosis?

Toxoplasmosis is a parasitic disease caused by the parasite, *Toxoplasma gondii*. The disease is a generalized infection that may be without symptoms, or a mild illness causing lymph node swelling, or a syndrome similar to infectious mononucleosis. The disease has been found in most warm blooded animals including pets, livestock, and humans. For most people toxoplasmosis is a benign illness but it can be life threatening to the immunocompromised or result in severe complications for infected fetuses.

### How is toxoplasmosis spread?

People become infected with toxoplasmosis by one of several ways:

- Eating or handling undercooked or raw meat from infected animals.
- Changing litter boxes of infected cats and accidentally touching hands to mouth afterwards and before washing hands.
- Gardening or other exposure to soil contaminated by infected cat feces and they touching hands to mouths afterwards and before washing hands.
- Eating unwashed vegetables grown in contaminated soil.
- Directly from pregnant mother to the unborn fetus when the mother becomes infected during pregnancy.

Domestic livestock and wildlife used for food as well as poultry may be infected with toxoplasmosis. Cats are the only species known to have an infection where the infective stage is excreted in feces and contaminates the environment. This infective stage called an oocyst become infective within 48 hours after excretion and remains viable for several months in spite of harsh environmental conditions, such as freezing, rain, or heat and dryness.

### What are the symptoms of toxoplasmosis?

Most infections are so mild as not to cause symptoms. For those that are symptomatic, the most common symptoms are body discomfort, fatigue, fever, sore throat, and muscle pain. Some may experience a mononucleosis-like illness with a rash and swollen liver.

Rarely an infection can occur in the eye leading to vision problems.

Individuals who are immunodeficient may have a reactivation of a previous infection resulting in encephalitis or respiratory symptoms.

Fetuses that become infected from their mothers may be born with vision problems, learning disabilities, or mental retardation. Other birth defects may also occur and in some incidents the baby may die shortly after birth.

### **How do I know if I have toxoplasmosis?**

You cannot tell without seeing your doctor. Your physician will complete a thorough history, review of signs and symptoms, physical examination and laboratory testing to confirm whether or not you have toxoplasmosis.

### **How is toxoplasmosis treated?**

Most cases of toxoplasmosis do not require specific drug treatment. For those who are symptomatic, pyrimethamine and sulfadiazine in combination or clindamycin may be used to eliminate the infection. Other drugs may be used to lessen the symptoms.

### **How can toxoplasmosis be prevented?**

Toxoplasmosis can best be prevented by minimizing exposure to the infective agent. Some steps that can be taken are to:

- Fully cook all meats and poultry (microwaving may not adequately cook all portions fully) and consume only pasteurized dairy products.
- Change litter boxes daily, disposing of used litter in sealed plastic bag or other container, before the infective stage matures.
- Wash vegetables thoroughly before eating. Those from home gardens are at higher risk of infection than commercially acquired.
- Cover sand boxes when not in use to prevent outdoor cats from using them as litter boxes and wash hands of children well after playing in the sandbox and prior to consuming food or drink.
- Wash hands thoroughly with soap and water after handling potentially contaminated soil or after handling raw meats, poultry, or vegetables.

To lessen the risk of cats becoming infected and shedding the oocyst, don't allow them outside; feed them only cooked meats or commercial cat food. Cats often become infected by catching and eating rodents, birds, or other small mammals. Cats that become infected will shed the infective stage for approximately two weeks.

Pregnant women or women contemplating pregnancy should take extra precautions to prevent a toxoplasmosis infection. Additional information for women is available at <http://www.cdc.gov/ncidod/dpd/parasites/toxoplasmosis/ToxoWomen.pdf>. Those who are immunodeficient should also take additional steps to prevent infections which may be obtained at [http://www.cdc.gov/hiv/pubs/brochure/oi\\_toxo.htm](http://www.cdc.gov/hiv/pubs/brochure/oi_toxo.htm).

## About... *Trichinosis*

### What is Trichinosis?

Trichinosis (trick-a-NO-sis) is a disease caused by a worm called *Trichinella*, which lives in animals including pigs, bears, dogs, cats and horses, and wild animals, such as bears, polar bears, foxes, wolves, walrus, seals and rats. Trichinosis is rare in the United States.

### How is Trichinosis spread?

You can get trichinosis by eating raw or undercooked meats, especially pork products and wild game, such as bear meat, seal, or walrus.

Trichinosis is ***NOT*** spread from person to person.

### What are the symptoms of Trichinosis?

- Diarrhea
- Nausea
- Vomiting
- Stomach cramps
- Fever
- Muscle pain
- Eye swelling
- Fatigue
- Headache
- Chills

How severe the symptoms are depends on how many worms were eaten in the meat. Most people have no symptoms or very mild symptoms. Symptoms usually begin 1 to 2 weeks after exposure. Diarrhea, nausea, vomiting and stomach cramps appear first, followed by muscle pain, eye swelling, fatigue, headache and chills. With severe infection, some people may have difficulty moving around or breathing. Death can occur.

### How do I know if I have Trichinosis?

You cannot tell without seeing your doctor. Your doctor may collect a blood sample or sample of muscle tissue (biopsy).

### How is Trichinosis treated?

Your doctor can prescribe medicines (antibiotics) to treat the infection.

### How can Trichinosis be prevented?

- Always wash hands after handling raw meat.
- Do not eat raw or undercooked pork or wild game meats:
- Cook meat products until juices run clear or reach an internal temperature of 170° F.

- Curing, drying, smoking or microwaving does not always kill the worms.
- Use separate cutting boards for meat and other foods.
- Carefully clean all grinders, cutting boards, work surfaces, and utensils with soap and hot water after preparing raw meat.
- Cook all meat fed to pigs or other wild animals.
- Do not allow pigs to eat uncooked carcasses of wild animals, including rats.

## **About... *Tuberculosis***

### **What is tuberculosis?**

Tuberculosis(TB) is a disease caused by bacteria. TB bacteria can attack any part of your body, but they usually attack the lungs.

### **How is TB spread?**

TB is spread through the air when a person with TB disease coughs or sneezes. People that spend a lot of time with an infected person may breathe in these bacteria and become infected.

### **What is TB infection?**

In most people who become infected, the body is able to fight the infection. The bacteria are alive but inactive.

Sometimes, medicine is given to keep the infection from turning into TB disease. If you are infected, be sure to know the symptoms of TB disease and call your doctor right away if you have them.

### **What is TB disease?**

TB bacteria become active if the body can't stop them from growing. Some conditions that increase the risk that TB infection will progress to TB disease are HIV, cancer, diabetes, and malnutrition.

### **What are the symptoms of TB disease?**

Symptoms of TB depend on where in the body the TB bacteria are growing. TB bacteria usually grow in the lungs and may cause:

- productive cough, especially bloody sputum (phlegm)
- cough lasts longer than one month
- fever
- night sweats
- fatigue
- weight loss, without dieting

### **How do I know if I have TB infection?**

A TB skin test is the only way to find out if you have TB infection.

### **Who should get tested for TB?**

You should have a Mantoux skin test for TB if you:

- have spent time with a person with infectious TB
- have TB infection or another condition that puts you at high risk for TB disease

- are from a country where TB disease is very common (Latin America, Caribbean, Africa, Asia)
- inject drugs
- live in U.S. where TB disease is common (shelters, migrant camps, prisons, jails, nursing homes)

**How is TB disease treated?**

TB disease can almost always be cured with drugs taken for at least 6 months.

For more information visit the TB Control Program (<http://www.in.gov/isdh/programs/tb/index.htm>)



## About... *Tularemia*

### What is tularemia?

Tularemia is a bacterial infection usually found in small mammals such as mice, rats, squirrels, rabbits and hares. Occasionally, water may also be contaminated. People are more likely to be exposed in rural settings, although urban and suburban exposures occasionally occur.

### How is tularemia spread?

Humans become infected through environmental exposures and can develop severe, sometimes fatal illness. Infection typically occurs from:

- Bites by infected insects, and ticks
- Handling infectious animal tissues or fluids
- Direct contact with or ingestion of contaminated water, food or soil
- Inhalation of infective aerosols.

Tularemia is ***NOT*** spread from person to person.

### What are the symptoms of tularemia?

Onset of tularemia is usually sudden, with fever, headache, chills, generalized body aches (often in lower back), runny nose, and sore throat. Sweats, fever and chills, progressive weakness, loss of appetite, and weight loss characterize the continuing illness. If untreated, symptoms often persist for several weeks or months usually with progressive debility.

### How is tularemia diagnosed?

Physician's complete a thorough physical examination and laboratory testing to confirm whether or not you have tularemia. Once diagnosed, tularemia can be treated with appropriate antibiotics. Treatment typically lasts at least 14 days to prevent relapse. As tularemia is not transmitted person to person, there is not a need for isolation.

### Are there complications from tularemia?

In untreated tularemia, symptoms often persist for several weeks and sometimes, for months, usually with progressive debility. Any form of tularemia may be complicated by blood infection, and rarely, meningitis.

### How can tularemia be prevented?

- Educate yourself on the proper handling of sick or dead animals, particularly when hunting, camping, or butchering; and avoid handling them if at all possible.
- Take personal protective measures against biting insects while engaging in outdoor activities.

### Is there a vaccine for tularemia?

Currently, there is no vaccine available.

## **About... *Typhoid Fever***

### **What is Typhoid Fever?**

Typhoid fever is a life-threatening illness caused by *Salmonella typhi* bacteria, which are found in the stool (bowel movement) of an infected person. Unlike other *Salmonella* bacteria, typhoid fever bacteria are not found in animals.

### **How is Typhoid Fever spread?**

You can get typhoid fever by eating food or drinking water contaminated with the stool of an infected person. You can also get typhoid fever from water that has been contaminated with sewage. Therefore, typhoid fever is more common in areas of the world where the risk of water contamination is high, such as Asia, Africa and Latin America. Typhoid fever is rare in the United States, Canada, western Europe, Australia and Japan.

Typhoid fever may also be spread from person-to-person by touching others or handling food with unwashed hands after using the bathroom or touching items such as diapers or linens soiled by stool and then touching your mouth.

What are the symptoms of Typhoid Fever?

- Fever (can be as high as 103° F to 104° F)
- Chills
- Weakness
- Headache
- Stomach pains
- Loss of appetite
- Nausea
- Vomiting
- Diarrhea or constipation
- Flat, rose-colored rash

Symptoms usually begin about 14 days after exposure. People who take medicine for the illness usually feel better in 2 or 3 days. Some people may have no symptoms but still spread the infection.

### **How do I know if I have Typhoid Fever?**

You cannot tell without seeing your doctor. If you think you have typhoid fever, see your doctor right away. If you are traveling in a foreign country, call the United States embassy for a list of doctors. Your doctor will need to perform a stool or blood culture to see if you have typhoid fever.

## **How is Typhoid Fever treated?**

Your doctor can prescribe medicines (antibiotics) to treat the illness. Most people who take medication recover completely.

## **Are there complications from Typhoid Fever?**

Unlike most other intestinal bacteria, typhoid fever bacteria can penetrate the intestine and enter the bloodstream. The bacteria often travel to the gall bladder, where they grow and continue to enter the intestines. The bacteria can also travel to other parts of the body and cause infection. This is rare if you take medication. However, people who do not get treatment may be sick for weeks or months, and up to 20% may die from the infection.

A small number of people, called carriers, recover from the illness but still carry the bacteria in their stool. These people, while not sick, can still pass the infection to others or become sick again themselves.

## **How can Typhoid Fever be prevented?**

If you are traveling to an area where typhoid fever is common, follow these precautions:

- Always wash hands with soap and water:
  - after using the bathroom;
  - before eating and preparing food;
  - after touching children in diapers; and
  - after touching anything soiled with stool.
- Drink bottled water or bring it to a rolling boil for one minute before you drink it. Bottled carbonated water is safer than uncarbonated water.
- Do not use ice or eat anything with ice unless the ice is made from bottled or boiled water.
- Eat foods that have been thoroughly cooked and that are hot and steaming.
- Avoid raw vegetables and fruits that cannot be peeled. When you eat fruits and vegetables that can be peeled, peel them yourself.
- Avoid foods and beverages from street vendors.
- Do not eat uncooked shellfish.
- Get vaccinated. There are two typhoid vaccines available in the United States. Ask your doctor or travel clinic for more information. You will need to complete your vaccination at least one week before you travel to be protected. If you have been vaccinated in the past, check with your doctor to see if you need a booster shot.

If you are being treated for typhoid fever, follow these guidelines:

- Take the prescribed medicine for as long as the doctor has asked you to take it. Do not stop taking it just because you feel better.
- Wash your hands carefully with soap and water after using the bathroom and before eating or preparing food.
- Have your doctor run tests to make sure that no typhoid bacteria remain in your body. By Indiana law, people who work in food preparation, child care or care of ill people require treatment, and they must not have any typhoid bacteria in their stool before returning to work.

## About... *Vaccine Preventable Diseases: Information for Adults*

### What are vaccine-preventable diseases?

Vaccine-preventable diseases are those diseases that can be prevented by getting shots that prevent them. Examples of these diseases include: tetanus (lockjaw), influenza (the flu), some types of hepatitis, pneumococcal disease, measles, mumps, rubella, polio, and chicken pox.

### How are vaccine-preventable diseases spread?

Different diseases are spread different ways:

- **Chickenpox:** spread by touching an infected person, or when they sneeze or cough, or by touching articles that have recently been touched by an infected person.
- **Diphtheria:** spread through direct contact with an infected person, or through contact with items that have touched an infected person's sores.
- **Hepatitis A:** spread person to person by hands that have not been washed after going to the bathroom or by touching items such as diapers or linens soiled by stool. It is also spread by contaminated water or ice and by eating uncooked foods that may have become contaminated during handling.
- **Hepatitis B:** spread by direct contact with blood or body fluids of a person who has it. For example, you can get it by having sex or sharing needles with a person who has it. It can be spread within the household if razors, toothbrushes or other items are shared with an infected person. In some cases, we do not know how the disease is spread. A baby can get it from her mother during birth.
- **Influenza:** spread through the air when an infected person sneezes or coughs.
- **Measles:** spread through the air when an infected person coughs or sneezes or by direct contact with an infected person's nose or throat drainage.
- **Mumps:** spread through the air when an infected person coughs or sneezes.
- **Pneumococcal:** spread person to person by direct contact with an infected person's nose or throat drainage.
- **Polio:** spread person to person by hands that have not been washed after going to the bathroom or by touching items such as diapers or linens soiled by stool. It can also be spread by throat drainage of an infected person.
- **Rubella:** spread through an infected person's nose or throat drainage. It can be spread when an infected person coughs or sneezes.
- **Tetanus (lock jaw):** the organism that causes the disease enters the body through several possible ways: a puncture to the skin with an object that has soil, street dust, human or animal stool on it; a cut caused by a rusty object; sometimes from surgery; and sometimes injected through contaminated street drugs.

**Who is at higher risk of getting and/or giving vaccine preventable diseases?**

- healthcare workers, lab personnel, people who work in close contact with other people, and are in contact with other people's body fluids;
- people who work (or live) with the elderly or with individuals with chronic health conditions;
- people who have chronic health conditions;
- people who work or live in close conditions; and
- anyone who is not up-to-date on their shots.

**What can I do?**

- Keep a copy of your shot record.
- Take your shot record to your medical check-ups, and ask your healthcare professional if you need shots.
- Get a flu shot every year.
- Know your childhood disease history (did you have chicken pox, mumps.)

## **About... *Viral Gastroenteritis***

### **What is Viral Gastroenteritis?**

Viral gastroenteritis (VYE-rull gas-tro-en-ter-EYE-tis) is an illness that is sometimes called "stomach flu". It can be caused by several different viruses, which are only found in humans. The infection is not usually serious and goes away on its own. It is not the same illness as influenza ("the flu"), which is caused by a virus that infects the lungs, throat and sinuses.

### **How is Viral Gastroenteritis spread?**

You can get viral gastroenteritis by eating food or drinking water contaminated with the stool (bowel movement) of an infected person. You can also get viral gastroenteritis by eating shellfish or drinking water that has been contaminated with sewage.

It is also easily spread from person-to-person by touching others or handling food with unwashed hands after using the bathroom or touching items such as diapers or linens soiled by stool and then touching your mouth.

### **What are the symptoms of Viral Gastroenteritis?**

- diarrhea
- vomiting
- nausea
- cramps
- headache
- muscle aches
- tiredness
- slight fever

Most people usually have symptoms about 1-2 days after infection. The illness usually lasts about 1-2 days but may last up to a week or more.

### **How do I know if I have Viral Gastroenteritis?**

See your doctor. The illness is usually diagnosed by symptoms and medical exam, but your doctor may order tests to rule out bacterial infection or another condition.

### **How is Viral Gastroenteritis treated?**

There is no medicine to cure viral gastroenteritis once you have it. There is no vaccine (shot) to prevent viral gastroenteritis. Your doctor may recommend medicine to lessen the symptoms or fluids to prevent dehydration (severe fluid loss). Drinking lots of fluids helps your body replace fluids lost by diarrhea and vomiting.

### **Are there complications from Viral Gastroenteritis?**

For most people, no. People who become infected almost always completely recover. Viral gastroenteritis can be a serious illness for people who are unable to drink enough fluids to replace what they lose. Infants, young children, people who are unable to care for themselves, and people with weakened immune systems are at risk for dehydration.

### **How can Viral Gastroenteritis be prevented?**

- Washing hands with soap and running water is the most important way to prevent the spread of viral gastroenteritis. Always wash hands:
  - After using the bathroom
  - After changing diapers
  - After cleaning the toilet
  - After handling anything soiled with stool
  - Before eating and preparing food
- Exclude people with diarrhea from fixing and serving food.
- Do not eat undercooked or raw seafood.
- Never send young children with diarrhea to a child care center or play group.



## About... *Viral Meningitis*

### **What is viral meningitis?**

Viral meningitis, also called aseptic meningitis, is an infection caused by a virus. It can cause an infection of the covering of the brain and spinal cord (meningitis). It occurs most often in late summer or early fall.

It can be caused by different viruses, and is usually less severe than bacterial meningitis. Most people who get viral meningitis recover fully from the illness, and do not require treatment.

However, a physician should always decide whether or not a person with possible meningitis needs treatment.

### **How is it spread?**

Because it can be spread by different viruses, it can be spread by different ways.

Some ways that viral meningitis can be spread include:

- an infected person coughing or sneezing in someone's face;
- an infected person not washing their hands after using the toilet; and
- sharing eating utensils with an infected person.

What are the symptoms?

Symptoms of viral meningitis include:

- fever;
- headache;
- stiff neck;
- red rash;
- drowsiness;
- may be nausea and vomiting.

In the early stages of meningitis, the symptoms of viral and bacterial meningitis may be the same. Early antibiotic treatment is necessary for recovery from bacterial meningitis.

Therefore, medical evaluation of anyone with the symptoms listed is extremely important. If you have any of these symptoms, it is necessary to seek medical attention, immediately.

### **Who is at highest risk for getting the disease?**

Although anyone can get viral meningitis, it usually occurs in children.

**What type of treatment is needed?**

Since the infection is caused by a virus, there are no antibiotics available. Your doctor may recommend over the counter medications to help relieve some of the symptoms.

**Should household contacts take any special precautions?**

Not usually, but family members should avoid sharing eating utensils and drink containers with the infected person. Always wash hands after using the toilet, or changing diapers.

**Can viral meningitis be prevented?**

There are ways to reduce the chance of passing on viral meningitis:

- always wash hands after using the toilet or changing diapers; and
- avoid sharing eating utensils and drink containers with anyone.

**Is there a vaccine available?**

There is not a vaccine specific for viral meningitis. There are vaccines to prevent other viruses that can cause viral meningitis, so it is a good idea to make sure that children are up to date on their shots.

## **About... *West Nile Virus***

### **What is West Nile Virus?**

West Nile virus is a mosquito-borne virus that causes encephalitis (inflammation of the brain) and meningitis (inflammation of the tissues that cover the brain and spinal cord). The reservoir (where the virus normally lives and multiplies) is wild birds. This virus was known to be present in Africa, Asia, Europe, and the Middle East, but had not been found in the Americas prior to 1999. Since then, the virus has been found in most states along the eastern coast and east of the Mississippi River. West Nile virus was first identified in birds in Indiana in the summer of 2001.

### **How can humans get West Nile Virus?**

Mosquitoes transmit the disease to humans by biting an infected bird, and then biting a human. Humans that are bitten by an infected mosquito may show symptoms 3 to 15 days after being bitten.

### **What are the symptoms of West Nile?**

Most people who get infected with West Nile virus will have no symptoms or mild symptoms. A few individuals will have a more severe form of the disease, encephalitis (inflammation of the brain) or meningitis (inflammation of the tissues that cover the brain and spinal cord).

Symptoms that may be present are: high fever, headache, neck stiffness, muscle weakness or paralysis, and confusion. Most people have very mild disease. West Nile virus has been reported in people ranging from nine months to 94 years old, but more severe disease is likely in individuals over 50 years of age, or those with weak immune systems.

### **Can West Nile disease be treated? Is there a vaccine available to prevent the infection?**

There is no specific treatment, but supportive treatment is provided as with other severe viral illnesses. There is not a vaccine available for humans.

### **How can transmission be prevented?**

Transmission of West Nile virus can be avoided by preventing mosquito bites, the only known route of transmission. To prevent mosquito bites, wear long sleeves and long pants when out from dusk until dawn, when mosquitoes are most active. Apply insect repellent containing DEET to exposed skin and clothing. Protect your family and your community by reducing the amount of standing water available for mosquito breeding in or near your property. For a more extensive discussion go to [ISDH's West Nile Page](#).

### **Reference:**

[Centers for Disease Control and Prevention](#).

## About... *Yersiniosis*

### What is Yersiniosis?

Yersiniosis (yer-sin-ee-OH-sis) is a disease caused by *Yersinia enterocolitica* bacteria, which live in animals including pigs, rodents, rabbits, sheep, cattle, horses, dogs and cats. *Yersinia* bacteria are also found in untreated water. Children are infected more often than adults, and the illness is more common in winter.

### How is Yersiniosis spread?

You can get yersiniosis by eating contaminated food, especially raw or undercooked pork products, such as chitterlings, or eating uncooked vegetables contaminated with soil or manure. You can also get yersiniosis by drinking untreated water or unpasteurized milk. Sometimes infection can occur after contact with infected animals that do appear sick.

Yersiniosis may also be spread from person-to-person by touching others or handling food with unwashed hands after using the bathroom or touching items such as diapers or linens contaminated with the stool (bowel movement) of an infected person and then touching your mouth.

### What are the symptoms of Yersiniosis?

- Fever
- Stomach pain
- Diarrhea (often bloody)

Symptoms usually begin 4 to 7 days after exposure. In older children and adults, pain in the lower right side and fever may be the main symptoms and may be confused with appendicitis (infection of the appendix). Some people may also have a sore throat.

### How do I know if I have Yersiniosis?

You cannot tell without seeing your doctor. Your doctor may collect samples of stool, blood, or urine, and order tests to rule out other diseases.

### How is Yersiniosis treated?

Most people usually get better on their own. A doctor may prescribe medicines (antibiotics) for people with severe infection.

### Are there complications from Yersiniosis?

Some people may have joint pain, usually in the knees, ankles or wrists. These pains can occur about one month after diarrhea starts and go away after 1 to 6 months. Some people, more commonly women, may have a skin rash that appears on the legs and trunk. This usually goes away on its own within a month. Blood infection may occur in people with weak immune systems or too much iron in their blood.

### How can Yersiniosis be prevented?

- Always wash hands with soap and water:

- after using the bathroom;
- after touching pets or other animals;
- before eating and preparing food;
- after preparing raw meat;
- after touching children in diapers; and
- after touching anything soiled with stool.
- Do not eat raw or undercooked pork.
- Do not drink unpasteurized milk or eat foods made with unpasteurized milk.
- After handling raw chitterlings, wash hands and fingernails carefully before touching babies or their toys, bottles or pacifiers.
- Use separate cutting boards for meat and other foods.
- Carefully clean all cutting boards, work surfaces, and utensils with soap and hot water after preparing raw meat.
- Wash or peel uncooked vegetables before eating them.
- Do not touch stool of pets or other animals.